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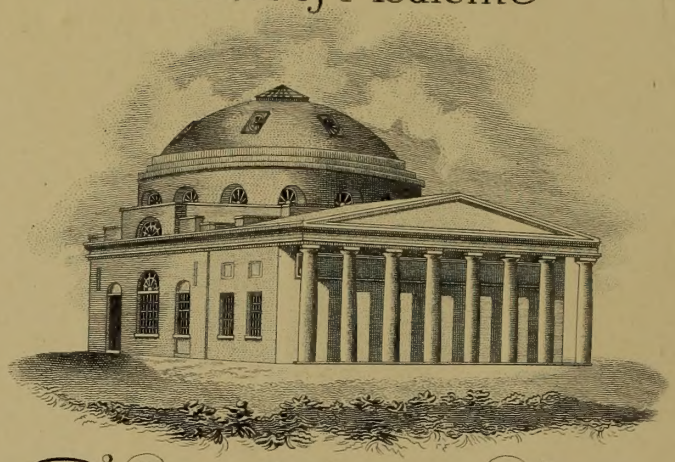

University of Maryland

University of Maryland Theses

Early Theses of Medicine and Doctor of Physical Diagnosis with Corrected Tables of Contents

These manuscripts, described as follows as Inaugural Dissertations in Latin, for many years presented to the University of Maryland for the Degrees of Doctor of Medicine and of Doctor of Physic during the years 1812-1861. The individual dissertations were bound together during the 1890's. The original tables of contents for the bound volumes are incomplete and include only about [illegible] of the [illegible] years. Corrections, from [illegible], as additional "Contents" pages, have been inserted at the beginning of each volume.

The project was [illegible] and directed by the Chief of Manuscripts [illegible] Richard J. Stellato, [illegible] Manuscripts Librarian, Hilda Mitgang Nelson, Office of Manuscripts Librarian [illegible] and the Dissertations Library, Barbara Ann Chabner, Head Librarian, Alan Fishman, Project Worker, [illegible].

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1871 (b)

Author	Title	Notes
Van Bibber, John P.	De Spiritu Vini Rectificato	(Latin)
Street, Charles H.	Pneumonia	
Green, George F.	Simple Remittent Fever	
Reinhart, D. J.	Typhoid Fever	
Walker, Hasford	Delerium Tremens and Its Treatment with Bromide of Potassium	
Murphy, P. L.	Opium	
Boylston, William A.	Inguinal Hernia	
Womble, John George	Ergota	
Massey, J.E.	Report of Six Clinical Cases	
Wallace, G. M.	Anaesthesia	
Hultz, R. M.	Opium	
Jones, Joseph H.	Pseudo-Membranous Laryngitis	
Waters, Charles H.	Delerium Tremens	
Lish, A. R. J.	Haemorrhage	
Bowen, William	Diphtheria	(No title page)
Wiley, W. W.	Six Cases of Disease	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Dukes, A. C.	Simple Intermittent Fever	
Jaeger, W. R.	Syphilis	
Krise, C. W.	Phthisis	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1871 (b)

Van Bibber, ~~G~~ J. P.	De Shiritu Vini Rectificato[1]	20p.
Street, C. Charles H.	Pneumonia	24p.
~~F~~ G reen, ~~G~~ George F.	Simple Remittent Fever	20p.
Reinhart, D. J.	Typhoid Fever	24p.
Walker, Hasford	Delerium Tremens ~~and~~ Its Treatment with Bromide of Potassium	25p.
Murphy, P. L.	Opium	16p.
Boylston, ~~Wm~~ William A.	Inguinal Hernia	26p.
Womble, ~~J.~~ John ~~G.~~ George	Ergota	42p.
Massey, J. E.	Report of Six Clinical Cases	17p.
Wallace, G. M.	Anaesthesia	16p.
Hult~~s~~z, R. M.	Opium	43p.
Jones, ~~J.~~ Joseph H.	Pseudo-Membranous Laryngitis	24p.
Waters, ~~C.~~ Charles H.	Delerium Tremens	12p.
Lish, A. R. ~~T.~~ J.	Haemorrhage	40p.
Bowen, ~~Wm.~~ William B.	Diphtheria	21p. No title page
Wiley, W. W.	Six Cases of Disease	48p.
Dukes, A. C.	Simple Intermittent Fever	16p.
Jaeger, W. R.	Syphilis	42p.
Krise, C. W.	Phthisis	40p.

[1] Latin

1871

Thesis

De Spiritu Vini Rectificato

Per

Joannem P. Van Bibber A.B.

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W. C. Van Bibber M.D.

Hac Thesis

Dedicata est.

De Spiritu Vini Rectificato.

Processus ille admirabilis motuum atque mutationis in corpore humano, quod vitam vocamus, quotidie injurias aliquas noxias patitur, quæ vel ex severitate tempestatis, vel veneno morbi, vel humana imprudentia oriuntur. In hoc modo dolor, perpessio, morbusque hominum comites constantes semper fuerunt, et intelligentia ista, quam ille unus omnium animalium tenet, eum ab antiquis temporibus admonebat remedia ex natura quærere, qua sanitatem ejus restituere,

seu dolorem mitigare solent.
Nunc apud omnes nationes, quamvis incultæ sint, systema aliquod ad medendum morbis institutum inveniemus, sive ab inculto medico, seu a doctore erudito agatur, sive a traditione servaretur, seu in libris innumerabilis scribatur et augmentetur. Seculis exactis quum primum uva homini innotuit, et ille servare cœpit succum ejus ad bibendum, haud dubium est, quin propter suum effectum temporalem in efficiendo hilaritatem et curarum oblivionem æstimaretur. Sed ubi experientia homines docuerat, quanta vis in eo esset,

quantum vini & quantum robur et corpori et animo affere videbatur, potestas ejus subtilis in systemate humano, ad morbis medendum usum ejus introduxit. Et quamvis id in temporibus Hippocratis multum immutat, hodie, in praesenti statu profecto medicina scientia, remedium nullum est quod talem usum universalem incitavit quam principium vini activum; "Spiritus vini rectificatus," sed quod nunc "Alcoholem" vocamus. Nuper propter mutationem magnam contra hydrargerum venesectionemque, impetus novus usu ejus datur, pleraque experimenta ad dijudicandum actionem ejus

in systemate instituta sunt.
Vis valida, quam in cerebrum et nervos, alcohol exercet, studio ejus difficultatem proprium dat, quia in systemate isto nexum adjungentem inter corpus et animam, ubi materiale et immateriale intime inter se mixtam invenimus. Tum difficile est materiae inorganicae chemicas mutationes intelligere et exponere, quanto difficilius esset mutationes quae obveniunt in partibus corporis investigare, ubi non solum in textis* ipsis mutationes complexae agunt, sed ubi circulatio sanguinem novum semper portat, denique ubi systema nervosa tum corporale

* Page 21

tum spirituale omnia moderatur.
Impedimenta ista ad accuratam
comprehensionem rei magna
sunt, et quod nos adhuc vin-
-cuntur confiteri necesse est;
sed in superis indagationibus
satisfactiones aliquae inventae
fuerunt, quae tam verisimiles
videntur, ut faciem rei totam
mutavissent. Quando alcohol
in ventriculum ingeritur ob
irritationem delectabilem
membranae mucosae caloris
sensationem incitat, et ut
celerrime absorbetur, gradatim
eadem sensationes corpore toto
diffunduntur. "Plexus solaris"
nervorum pone ventriculum

impulsus recipit, impressioque per ramulos ad cætera viscera transmittitur, et secundum nervum splanchnicum ad medullam spinalem et cerebrum. Cordis pulsationes nunc accelerantur, vasa capillaria quoad diametrem augescunt, vultus turgescit, oculi ipsi splendide nitescunt, et ut solet, propter auctam cerebri circulationem facultates animi viribus novis prædita esse videntur. In hoc tempore excitationis, aspectus externa sensationesque interna nos fatare corporis vires auctas, et temperaturam auctam facerent. Sed in recentibus indagationibus observatio accurata, auxilio

thermometri, et in homine et in animalibus inferioribus temperaturam invenit constanter esse reductam. Ad explicandum istud, invenitur quando alcohole ingesto in ventriculum excretiones corporis omnes diminui, et pro tempore obesse et tardare tabis actum, qui semper in corpore versatur. Calore animali in activitatem processuum diversorum dependente, quando quidis horum intervenit vel tardatur, sequitur necessario temperaturam corporis reductam esse. Impossibile est modum operandi certam alcoholis in hoc resolvendo explicare, sed est verisimile, ~~in~~ in textis ipsis agendo, sive perturbat

ad praeveniendum mutationibus chemicis, eodem modo quo cadavera a putrifactione conservat, seu fibris ultimis nervorum destruendis, illa textura viribus necessariis privat ad has mutationes gerendas.
Nam sympathetica seu nervorum systema, quae nutritioni corporis praesidet, ab alcohole modo praecipuo afficitur, ut videbitur quum actionem ejus in diametro vasorum capillarium consideremus.
Ad probandum quam magnam vim alcohol in reducendo corporis labem habeat, & de hoc reparandi necessitatem demendo, patet, si alcohol post mensas datur, ut concoctionis fabris, seu incre-

-mentum temperaturæ dum cibus concoquitur, vel non evenit, vel tam vile fiat ut sentiri non posset. Ex hoc sequitur quod ex usu alcoholis quantitas ~~cibi~~ minor cibi necessaria est ad corpus sustenendum, et Hammond experimentis plurimis expertus est quod cum paululo alcoholis quotidie, et cum cibi quantitate reducta, pondus corporis seipsa crescit. Vasorum capillarium diametrum alcohol auget in omni corporis parte, præsertim in iis circa caput. Si nervum sympathicum colli scinditur, instanter vasa capillaria latéris hujus valde dilatantur, et de hoc experimento quam magnam

auctoritatem alcoholem habet in systemate isto nervorum cognoscere possumus; in iis destruendis, et potestate eorum adempta horum diametri vasorum extra statum naturalem augetur. Ex observatione quotidiana partem hanc circulationis probari summam nervorum distributionem invenimus, ut videtur in mutationibus variis et citis, quae in quibusdam agitationibus dissimilibus fieri videntur; exempli gratia, quando puella pudore rubescit, aut metu palet. Vasa capillaria cerebri eo modo efficiuntur, et magna copia sanguinis alcohole commixta, quae per cerebrum disperditur,

excitationem gradus primi parit. Sed quamvis cordis actio excitatur, vasorum ultimorum diameter major fit, circulationem tardat, et sanguine corrupto, et quasi ab alcohole venenato, suam vitalitatem perdit, cerebrum non potest distinctis suo proprio officio fungi, et diende animi facultates in stupore et denique in somnu decidunt. Alcohol sine dubio similiter ac cætera substantia ejusmodi in corpore chemice mutatur, et vel sub formam dissimilem eliminatur, vel cum aliis nutrimentis nova corporis textia formare servit. Nam quando portiones parvæ alcoholis sumuntur,

eam in excretionibus corporis inveniri non licet, sed quando portiones magna sumuntur, si ullum reperitur, omnino impar est quantitati ingesta.

Etiam in ejus administratione tempus fore videtur, quando id diutius in corpore non mutabitur, ut verum est de plurimis remediis aliis; exempli gratia, Oleum Morrhuae tempore longo assimilaretur, sed systematis tandem saturato, hoc oleum in suam propriam formam per alvos transit. Si sanguis sic usu continuo, alcohole saturatur, indiciorum series bene cognita sequuntur, quae per nomen deliri trementis scari licet, quamvis alcohol

materiae nervosae affinitatem propriam habet, tamen, haec conditio abnormalis cerebri, est tantummodo manifestatio localis mutationum morbidarum quae in omnibus organis corporis occurrebant. De his factis certe apparet, quod si alcohol dum systema in statu sanitatis est, longo tempore, et in immodicis portionibus sumitur, corporis vires non possunt increscere, at processum vitae integritatem officere ab perturbationibus gravibus et chemicis et nervosis servit. Atque contra, si parce ad mensam adhibetur, ut jam solet, sic melius alios cum cibis, ut nullum effectum

habere posset nisi localem in membranum mucosum ventriculi. In bona valetudine, quando nullum signum ejus utilitatis apparet, quando tabes et reparatio in aequilibrio sunt, quando temperatura naturalis adest, hujus immoderato usui eventus succedunt infelices.

Sed in morbis acribus, ubi hos processus maxime perturbatos habemus, ubi tabes corporis et insignis et celera est, ac quando temperatura alta quae hanc conditionem sequitur & paralysem cerebri & cordis affere solet, comitatur, tum in hac substantia remedium habemus, quod directe symptomata haec perniciosa abolere debet. Atque probatum est

per experimenta in canibus, quod si materia putrida in venas animalis hujus injicitur, et inde febris ardens prorumpit, ut alcohol temperaturam diminuerit, et ides auferet pericula quæ hac conditione pendent. Probabile est etiam alcoholem in febribus agere in destruendis minutas animal-
-culas, quibus præsentibus excitata et abnormalis actio attribui potest. Perspectum est magnam copiam alcoholis in febribus administrari posse, quin aliqua perturbatio mentis discerni possit. Unde putari possumus actionem alcoholis adversam esse morbidis viribus

febris, sicut novimus portiones venenosas Atropiæ sine periculo administrari posse, quando systema potestati adversæ Opii subjacet. Ita alcoholis effectus, qui maxime sanitati nocet, in quibusdam conditionibus morbidis maxime utiles fuit; et cum administrando scientifice, jam sperare possumus melius contendere cum illis febribus, quæ inimici vitæ humanæ perniciosissimi semper fuerunt.

Thesem hanc imperfectam non possum concludere, quin citem ultimam opinionem inclyti B. W. Richardson sub hac re momentanea. Hæc

verba scribit, "Nullum documentum habemus quovis tempore vires systematis auctas fuisse et actione alcoholis. Et usu epis temperaturam reductam habemus, et veritas de qua disputari non potest, et monstravit eum non esse in corpore consumptum modo chemico. Si cum administratione scientifica alcohol, febrem sanare videtur, solum in reductione temperaturæ, et tabem corporis prævenendo agere potest, non corpus sustinendo, eodem modo quo cibus animam sustentat."

Physiologia experimentalis, adhuc in infancia sua, multum

jam verum effectum alcoholis manifestare fecit, et speramus diem non longinquam esse, quum questiones plurimæ, quæ nunc sunt causæ lit contentionum, explicet. Quamvis medicamentorum effectus in animalibus inferioribus aliquo modo dispares sunt ac in hominibus, tamen est tantummodo, multis experimentis, multis deductionibus, et semper contemplando, nos posse sperare nostram organizationem complexam intelligere.

Narratur de præstantissimo Atheniense philosopho Socrate, ut dum admirabat fanum Apollonis Delphicum, hanc

sententiam in muro inscriptam
vidisse, "Γνῶθι σε αὐτόν".
De sensu horum verborum
itérum itérumque cogitabat,
et contemplatio istius unicæ
sententiæ dicitur fuisse
fundamentum in quo illam
condidit philosophiam
sæculis futuris admirandam.
Nobis corporis functionibus
studentibus, quam sublimia
et quam cogitatione digna
sunt verba ista, quæ Græcum
philosophum contemplare doc-
-uerunt. Quis majorem
hortationem ad accumbendum
nostræ scientiæ habere possumus,
quam cognoscere conatum
et studium ejus esse ad

investigandum illud admirabilissimum operum omnium Dei, - corpus humanum.

Note.

In the Latin language there is no word that precisely conveys the meaning of our word "tissue," which is of French origin. In the foregoing pages therefore the noun "Textum," i.e. has been used in this sense.

Some words as "organization" &c. though not used in Classic Latin, still are much used by Longorgi in his "Institutiones Philosophicæ," & by other more modern writers.

AN

Inaugural Dissertation

ON

Insanity

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Chas. H. Hall

of

Maryland

Session of *1874 11*

(2) Pneumonia

Pneumonia, or inflammation of the parenchymatous tissue of the lungs, is a frequent disease of infancy and Childhood, but not so much so as bronchitis. It is less frequent in infancy than Childhood. It differs materially in these two periods. In Childhood it is most frequently primary and lobar, and in this it agrees with the same in the adult but in the infant under eighteen months of age it is seldom primary but is secondary and confined to a part of a lobe. This then at once devides pneumonia into two kinds, primary and secondary, according to the cause and also lobar and lobular the one you have the whole lobe

involved the other circumscribed and confined to a lobule.

Causes. Pneumonia in infancy and childhood, is brought about in the same manner as in the adult; that is atmospheric causes vicissitudes of Temperature, to cold, to exposure to currents of air &c. Consequently most common in cold weather, and does not differ materially with the same disease in the adult; most frequent lobar and most frequent in the right lung, seated almost always in the lower lobe, though sometimes the upper lobe is affected, the same of the left rarely. Whooping-cough measles and Tubercu-

losis is a common complication; in the former it is produced by the zymotic poison, in the latter from the irritating effect of the tubercular matter, and this latter is more apt to produce pneumonia in the young than the adult, and is persistent and obstinate.
Pneumonia, as a complication of Scarlatina and Whooping-cough increases greatly the mortality. In these diseases it does not occur so frequently as Bronchitis. Hypostatic Congestion is supposed by some to be a cause. Bronchitis of the larger tubes hardly probable. Capillary Bronchitis may be a cause. Foreign matter

may as filing, as a clot, and
Anatomical Character. We will
consider these under their respective
heads, first lobar, second lobular,
the former, rare in infancy the
latter, common, the former seems to
mean the same character at all
periods of life. Having a starting
point soon involves the whole of
it, two or more lobes are affected
in extensive inflammation, the
disease occuring independently in
each lobe. It has three stages, that of
engorgement, red and gray hepa-
tization. In the first stage, the air
cells are distended from the capilla-
ries being affected and growing

forth an exudation into the cells. The part affected increases in weight and size, is softend and of a dull red collour as bloody froth escapes when incised. Second Stage the air cells are filled with pus cells, granular epithelial blood granular cells and amorphous matter they appear to propagate themselves from the nucleated variety, the colour is still a dull red softened and the volume increased and is readily torn and is impermeable to air cannot be inflated as some authors say in this stage there is no crepitation but, in a few days this inflamatory product changes.

the hematin then appears and what was before red now becomes grayish the cells becoming more granular and they begin to undergo a fatty degeneration there is still no crepitant râles but much softened. this process continues the cells under go this fatty degeneration liquify and are gotten rid of by absorption and expectoration. The extent of the inflammation may be very considerable from the size of a pea up ordinarily one two or three inches Symptoms — The lobar begins as a rule abruptly or may be preceded by a cold, seldom do we have a

chill in the child, and never in the infant, in this may differ-ing from the adult. or it may be ushered in by convulsions. The lobular is ordinarily a secondary disease hence it begins in a more gradual manner. Acute pneumonia presents the following symptoms. Loss of apetite, thirst restlessness elevation of tempature pulse accelerated according to the amount of lung tissue involved pneumonia flush of the cheek coun-tenance distorted ala nasi dilated widely and rapidly. more in expiration, respiration much excelerated the expiratory more may be al-

-most considered as pathognomonic of this disease but it cannot be considered as such when taking alone as and inflammation of any of the organs which are compressed by the muscels of respiration may produce the same symptom as the aldominal organs or the spleen with the commence of this disease we have a cough at first dry, and painful but it becomes looser, and painless, the sputum if expectorated may be frothy and mucus and in the later stages is mucopus. The head symptoms appears to be the most distressing at first,

the child complains at first, if old enough, of pain in the head if not it carries its hands to the head, rolls its head from side to side and is fretful, eyes are shut. Sometimes we have vomiting and twitching of the muscles of the face so that the physician may be led to suspect some head or cere=bral trouble and entirely overlook the real disease, but these subside as the disease advances and the pneumonic symptoms proper becomes more manifest. The breathing is thirty or fourty per minute and in severe cases may reach sixty, seventy

or even eighty per minute, in infants greater than children, and if the child be at the breast it will suck for a few seconds then let go the nipple, on account of the demand of the system for more oxygen. Dilatation of the ala nasi and compression of the lower part of the thorax accompanies the respiratory effort. The temperature is elevated to one hundred and one and may reach one hundred and ten, an average hundred and four. The skin hot and pungent and the face flushed tongue is covered

with a moist fur. The thirst great and we should take advantage of this and administer food the bowels constipated, the secretions demnished in first and second stages. In from seven to ten days the symptoms begin to decline, the cough may continue for several weeks. Asthenia the cause of death commonly all the symptoms being augmented. Death seldom occurs from apnoea without existing bronchitis, secondary causes as a rule present a more mild phase the disease some

times is over looked. Tubercular pneumonitis extends over much or little surface according to the irritation, caused by the extend of the deposit here, we have very distressing symptoms added to phthysis. Physical Signs — are the same as in the adult with one exception that is they are less distinct under three years of age. In a majority portion of cases, we have no crepitant râle owing to the small size of the air-cells if present may be considered as positive proof of the

disease from this, it is readily seen that the positive signs being absent somewhat obscure the diagnosis. The vesicular murmur somewhat intensified. Very slight dulness on percussion difficult to appreciate. The second stage rapidly supervenes, the physical signs more distinct expiratory and bronchial respiration, higher in pitch than the vesicular murmur, the voice is transmitted to the chest applyed over the inflamed portion, a vibration is communicated to the hand

when placed over the Chest. You hear rales in different parts of the Chest, from co-existing bronchitis dulness on percussion in second stage corresponds in extent to the inflammation, and solidifycation. Bronchial respiration present thus subsides as the inflammation abates and again we hear the subcrepitant rale and moist rales may be heard, some times after Convalescence has occured. In lobular pneumonia we must not expect the signs to be so well marked, because of the limited extent

of the inflammation and because it may also be double.

Diagnosis— It is sometimes difficult. The acute may be confounded with meningitis or with the essential fevers if the examination be made during the first or second days from the continued fever with exacerbations and rapid pulse, high temperature languor and drowsiness. It may also be confounded with intermittent fever. We have cough from the commencement and here I would say that a remittent in the child corresponds to a typhoid in the adult-

and this begins more gradual than pneumonia, and in the later the expiratory moan becomes a sign of great value and the fine symptoms can only be made out by auscultation and percussion, Scarlet fever assimilates it in the commencement but the rash soon clears up the diagnosis the fauces and mucus membrane lining the mouth are red. Auscultation and percussion point out the greatest differential signs. The next diseases to which we should give our undivided attention is Bronchitis

and pleuritis unless there be a complication, the expiratory moan again is of great value if this be constant and well marked we may set it down almost to a certainty to be pneumonia. Auscultation should be practiced carefully to ascertain the point of solidification. Bronchitis, can be differentiated by their being no dullness and the decase being bilateral. When the lung becomes solidified, we have dullness on percussion bronchial respiration, and bronchophony these, signs all being present prove

almost conclusive the disease to be pneumonia. The exception is tubercular deposits. The history of the case must guide our diagnosis. The effusive stage of pleuritis presents some signs similar to pneumonia but the dullness varies in pleuritis according to the position of the child. In the lobular variety the physical signs are indistinct on account of the little surface involved. Sometimes so small a portion is affected as to produce no dullness. It may then pass for bronchitis, and this but little

the treatment is about the same. Prognosis — One lung only affected with primary pneumonia if properly treated recovers in the child, and as a rule in infant — if double have it baptized likewise when complicated with Whooping-cough Measles and Tuberculosis though they too get well sometimes but if the pulse become more and more frequent and full inability to support the head, total loss of appetite, absense of tears when crying and the countenance pale, look out for the messenger

of death. Treatment Sobar and lobular require to be treated differently. In lober some give an emetic producing a sedative action up the heart and diminishes the flow of blood to the lungs. or if the child be over three years of ages under certain conditions that is previous good health, robust and in the first stage of the disease give Tinc Aconite rad or Veratrum Viride gtt 1/4-1/2-1 every three or four hours keep the pulse down to the normal standard for two or three days. If the lung be hepatized little

good can be expected from this treatment. In the first stage in hearty and robust children with great dyspnoea I would be tempted to use the lancet or at least use the Tartrate of antimony say one sixteenth of a grain with the same amount or less of morphia every two or three hours, but when this stage passes which should be watched closely, it may be necessary to sustain and give expectorants such as Scillae Combined with Ipecac or Dovers powders Combined Nitrate of Potash. In Secondary pneumonia if it

be lobar or primary and the Child under three years of age and delicate we should not administer Aconite Veratrum nor Antimony, but the treatment should be mild such drugs as Ipecac, Scillae and Camphorated Tincture of Opium, must be use in the first stage, and after this period, we should use something more stimulating the Carbonate of Ammonia with Syrup of Scillae and Syrup of Senega. If the bowels be constipated give a small dose of Castor Oil, Citrate of Magnesia, or Rochelle Salts

should be given. In all cases counter-irritation should be produced over the inflamed portion of the lung. Iodine mustard and Sloches liniment are among the best remedies. When the next remedy is the oil-silk jacket; it is seldom necessary to blister. The diet should be chiefly animal broths, milk and beef-tea, with a few exceptions, that is in the first stage of the disease in robust children. In treatment of lobar pneumonia we should always ascertain the especial condition of

the Childs Constitution. Lobular pneumonia, the treatment differs somewhat. It should be sustaining from the first with a few exceptions. that is where the disease is primary and acute. an important method is Counter-irritation produced in the scapular and infra-scapular region, mustard and stimulating liniments with oil silk jacket. The syrup of Senega and Carbonate of Amonnia should be given through out the disease Alcohol occasional.

Respectfully Submitted.

C. H. Streit.

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of [illegible] 18[illegible]

characterized by remission; Griesinger, because it is associated with [illegible]

[illegible] not of sufficient [illegible]

Septicæmia one case, — the remitting stage is short, and in some cases absent; although its general presence is well established.

[illegible]

[illegible] followed and [illegible]
with cephalalgia, or the frontal
pain of the head, slight nausea
or sickness stomach with the
tongue furred. The symptoms
increase, until a marked chill
is established. The chill is not —
[illegible]

[illegible]

and a half. Commencement of
the chill is, not always, to
[illegible] the cold stage, with a sensation
of chilliness, languor, debility,
bad effections, and general
irritability. Begins the attack.

after [illegible] Syphilis;

Febrile condition not developed until the fol[illegible] the [illegible] frequency, and are not so hard, and tense as in Scarlatina, and do not, as a general rule in the first exacerbation, exceed 100, or 115. beat in a [illegible] dry, and rough appearance, and always a sensation of heat in the throat. Violent pain [illegible] and the frequency of this disease. The cephalalgia is a throbbing sensation, and

[illegible] the patient [illegible] to be [illegible]
[illegible] patient attest, with the
[illegible] is very apt to complain
[illegible]
of weight about the head,
vertigo, trouble and always
[illegible] dyspnoea is in this
[illegible] case. Nausea and vomiting,
with [illegible]
[illegible]
[illegible] of a [illegible] transient or of a
[illegible] character, [illegible]
of more or less, of the [illegible]
of the stomach. The bowels are,
as a general rule, always
constipated [illegible]
[illegible]

Fever ice of a hard [illegible]
[illegible] and the biliary [illegible]

[illegible]

[illegible] and the patient will
ask for water [illegible]

[illegible]

[illegible] Respiration is hurried;
[illegible]

Sometimes, the febrile [illegible]
[illegible]

[illegible] portable, and [illegible] ap-
[illegible] a refreshing shower.
[illegible] skin is then hot and [illegible]
[illegible] a copious consumptive ex-
[illegible] discharge covered with
[illegible] profuse perspiration; the
[illegible]
[illegible] extent: the pain in
[illegible] back, and loins still
[illegible]
[illegible] Afterwards in the diabetes,
[illegible]
[illegible] water, dry skin, and still
[illegible]
[illegible] extent; the world subsides, and
[illegible]
[illegible] completely the heart-pervoxysm.

[illegible] occur
in the night, — the degree of
threatment — of the febrile
action varies very much
in different patients, from
[illegible] to very slight, as in
approximate a continual
fever, [illegible]
[illegible]
The duration of the remission
varies from two, or three
days, to [illegible] days.
At the end of the remission
another chill, may ensue,
but it is generally slight.
The remissions are very irregular

[illegible]

[illegible] remission, while in other[illegible]

[illegible] may be regular during

the entire course of the di-

[illegible] remissions generally cease

[illegible]

[illegible], and the fever becom[illegible]

[illegible]

[illegible] a certain proportion of

[illegible], eventually [illegible]

[illegible]

Cases, remittent fever is

succeeded by intermittent fever.

[illegible] the remission is [illegible]

[illegible]

[illegible]

[illegible] appearance of all the symptom[illegible]

Agentleman of the Second

[illegible]

[illegible]

and fifteen to a hundred

[illegible] degrees, but must

be Severe or in the Fever

paroxysm. Children is more

[illegible] Severe nor their Stools in

the fever paroxysm.

covered,

for, five revolving a greater

Nausea, and Complete anorexia

descent, and in a large

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] excellent fruit.

[illegible] produced [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] producing, [illegible] portable,

[illegible] experienced [illegible]

[illegible] with accuracy.

[illegible] one to two weeks,
but has been known to last
much longer. The average
duration is generally two
weeks or fourteen days.
[illegible]
prevalence, not infrequently
[illegible]
with a paleness of the skin,
[illegible]
nervous debility, with the
typhoid enlargements.
Complications.— Trouble about
the brain, as meningitis.
[illegible]
malle-pneumonia, is not uncommon

[illegible] and [illegible] of
[illegible]
[illegible] power. These complications
[illegible] of the disease in question, and
[illegible]
by the [illegible]
[illegible]
[illegible] blended, and presenting a brown
[illegible]
[illegible] enlarged, congested, and
[illegible] in some cases of
[illegible]

[illegible] disease and being
[illegible]
[illegible] the [illegible]
[illegible] in thought to be
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] typhoid fever, and by having
[illegible]
[illegible]
[illegible] 1st, The abdominal
[illegible] symptoms, so characteristic
[illegible] of typhoid fever, are absent
[illegible] remittent fever,

[illegible] and, in resembling flour, the [illegible] varieties [illegible] [illegible] flour, there is great irregularity of [illegible] [illegible] regular from the beginning, to [illegible] [illegible] [illegible] [illegible] [illegible] of much value in favor of [illegible] flour. It is [illegible] [illegible] is wanting in [illegible] [illegible] flour.

[illegible] — Sample resembled [illegible] hundred [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] in the unexhausted
stock, but when it is com-
[illegible]ated, the fatality comes in
[illegible], strength when com-
[illegible] [illegible]
[illegible] heavier on the complication,
and not the universe. The fatality
[illegible] depends very much on
the character of the
[illegible].

[illegible]

[illegible]

[illegible]

[illegible] present, [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

the diagnosis accurately.

Antifebriles

[illegible]

[illegible] are the anti-

[illegible], prepared by

[illegible]

[illegible] the administration of the
[illegible] Chloral mixture [illegible]
[illegible] fit, as a pastime in a
[illegible]

and Necessities can be
refined, by the administration
of Opium. The excessive Moral
[illegible] be pulverized by swallowing
[illegible] of [illegible]
water in small quantities,
the [illegible]. Nitrous Oxide
[illegible] be administered during
a febrile paroxysm.
[illegible], containing a preparation
[illegible]
a nervous and Nervous
Convalescent Stage.

AN

Inaugural Dissertation

ON

Typhoid Fever,

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

C. Jerome Reinhart,

Of

[illegible]

Session of 1870-71

Typhoid

Typhoid is a disease
[illegible] system in
which the whole organism is in-
volved in disorder.
disease is blessed with
called [illegible]
[illegible] gastric [illegible]
[illegible]
[illegible]
the disease [illegible] attention [illegible] to [illegible]
[illegible] Justly

[illegible] and [illegible]
[illegible] it
[illegible] it was [illegible]
confounded with [illegible]

Its distinct character is now generally conceded. Louis a distinguished French [illegible] it is accredited with [illegible] having been the [illegible] pathology, throughout, and demonstrated its distinctness.

The name Typhoid was given it by him from [illegible]

[illegible]

[illegible] disease is manifest by the symptoms common to con- continued fevers. In addition [illegible] pathological investigations have discovered the existence [illegible]

These [illegible] called in the intestinal con- [illegible] glands. Early in the disease the glands of Peyer and [illegible] solitary glands of the [illegible] are discovered

[illegible] condition.

[illegible]

[illegible] condition. [illegible] commonly [illegible] depo-
-sition in them [illegible] by [illegible] material.

[illegible] has been [illegible] &c.

[illegible] that [illegible] by vascular congestion [illegible] the granular structure [illegible] congestion [illegible] changes which the blood [illegible] gone. The indurated

[illegible] is [illegible]
[illegible]
sloughing, ulceration, granulation
and cicatrization are to be included
as consequences. During the
progress of the disease the
[illegible]
[illegible] charged, their condition
[illegible]
a disposition to restoration to
[illegible]

Symptoms, &c.— For convenience
[illegible]
[illegible]
[illegible] those of the first or forming

[illegible]

[illegible] tion. [illegible]

[illegible] and [illegible]

tient is compelled to [illegible]

ed. The duration of the [illegible]

is generally from 5 to 10 [illegible].

The second stage be[illegible]

[illegible] times until the debile symp-

toms terminate in con[illegible]

or death. The constitu[illegible]

and previous condition of the

patient modify the chara[illegible]

of [illegible]

Its duration is in a large number of cases from 2 to 3 weeks.

The symptoms of the first stage [illegible] more or less pronounced [illegible]sations occurring irregularly, sometimes [foll]owed by [illegible], sometimes not.

[illegible]

[in] the frontal region. Mental irritabi-

[illegible]

[illegible] or evening [illegible]

[illegible]

[nau]sea sometimes slight emesis

[illegible] in a large proportion of [c]ases, pains in the loins and limbs.

The cutaneous surface presents an appearance of radial congestion [illegible] is followed by the eruption of [illegible] the face, but is continuous over the whole body, next to the face it is most marked on the hands and arms. The redness disappears under pressure and returns more or less quickly after it removed. This eruption is supposed to be the result of capillary obstruction, caused by a change in the constitution of the blood.

Pain in the head is often a marked complaint during the first week.

[illegible]

[illegible] mental [illegible] reduced [illegible] the disease, it is [illegible] open, as [illegible] the [illegible] confused on awakening, [illegible] incoherently and often [illegible]

As the disease [illegible] or unfavorably the lesions diminish or increases. It is [illegible] but exceptions [illegible] [illegible] of [illegible] [illegible] annoying [illegible]

colored matter

collect on

The deflections

color and

is observed,

Fraxinus

carbonyl

[illegible]

[illegible]

[illegible]

is often [illegible]

isolated [illegible]

They are [illegible]

Sudamina [illegible] is
when the [illegible]
life [illegible]
A slight-con [illegible]
upon the [illegible]
lieve it [illegible]
[illegible]
[illegible] ice [illegible]
in its nature [illegible]
the cutaneous surface
Epistaxis often gives gre [illegible]
me occasions loss of [illegible]
[illegible] the
[illegible] is increased in nearly ev

[illegible] The natural [illegible] of
increase in frequency [illegible]
in [illegible]

During the existence [illegible]
condition the urine [illegible]
[illegible] and [illegible]
When convalescence begins it become
[illegible] in quantity [illegible]
[illegible]

[illegible] the [illegible]
[illegible] the [illegible] filtered,
[illegible]
[illegible]
[illegible] under [illegible]
[illegible] unclosed

Typhoid

e determini

in

especially

by ascertaining

Symptoms of Glaucoma

Lectures Ophthalmic

Treatment, &c.

—tractions on

palliative

becomes

[illegible]

The measures described occur in the [illegible] acquire the a[illegible] stimulants.

without [illegible]

[illegible]

[illegible] patient had

[illegible] from the

[illegible] I [illegible]

[illegible] the patient awoke

Prof. [illegible] thinks it [illegible]
beneficially by combining with [illegible]
the alkaline con[illegible]
blood. The explana[illegible]
Colonel Pleasants [illegible]
and merit the attention [illegible]
Medical Profession.

Prof. P. [illegible]
the use of [illegible]
[illegible]

An explanation of its action
has yet [illegible] but [illegible]
observation has proved it useful [illegible]

1871

A Dissertation

on

Delirium Tremens

and

Its treatment with Bromide of Potassium

By

Hasford Walker

Delirium Tremens

The pathological effects of alcohol on the human system are many and varied; giving rise to numerous diseases, both mental and physical. Indirectly, the excessive use of alcohol is productive of favors the production of disease and, at the same time renders the system less able to resist the poisonous influence. The affections to which humanity is liable from the abuse of alcohol are so numerous that we almost shrink from the task of enumerating them. Among these are cirrhosis of the liver, fatty liver, gastritis, and various dyspeptic affections, too numerous to mention, also lesions of the kidney, embraced under the head of "Bright's disease." The know of nothing which describes the effects of the abuse of alcohol more forcible than a paragraph taken from a work on practice of medicine, by Dr. Samuel H. Dickson, formerly a Professor in the S. C. Medical College, now a Professor in the Jefferson College of Philadelphia Pa. -

"Long, gloomy and disgusting has been the catalogue of maladies introduced and aggravated by this species of poison. With the immediate consequence of the indulgence in the use of alcoholic liquors, we are all so familiar, that the lesson of horror, so early inculcated upon the mind of the young Spartan, by the exhibition of a drunken Helot, is entirely lost upon us."

"The tottering, uncertain walk the broken confused speech, red eye, and the distorted countenance of the drunkard, shock us no longer; and even the total, though temporary deprivation of reason, the connecting link, which makes man kindred with the Deity, serves rather as a matter of jest and ridicule, than of pity and dismay. The short-lived distinction as the Indian says, with the venomous serpent; but unlike him we possess no talisman to protect us in our thoughtless rashness."

"Man dies by famine, by pestilence, and by the edge of the sword. He is, in his hopes, pall before the withering blast of many and diversified agents of evil; but to intemperance must be conceded

the first place in the list of those malignant influences whether we regard the number, nature of its victims or the extent and enormity of ruin which follows in its train"

Delirium Tremens is an affection incidental to alcoholism. A mooted question is whether the affection known by this name, is caused by the continued stimulant action of alcohol on the brain, or by the sudden withdrawal of the usual amount of stimulus from that organ. As an answer to this question, we quote Dr Austin Flint Professor of practice of medicine of Bellevue Medical College, N. Y. Dr. Flint says:-

"Both explanations are correct; in a large proportion of cases its development is evidently owing to the use of alcohol being suspended or much diminished. Thus it occurs in persons who suddenly undertake to abandon intemperate habits, or who are unable to obtain liquor or who are prevented from drinking by the occurrence of some disease or accident. It is notoriously common among inebriates, who are thrown into prison.

and among those admitted into hospitals. It is apt to follow paroxysms of intemperance, in periodical drinkers, when the stomach refuses further alcoholic libations. On the other hand it is sometimes developed notwithstanding the continued use of the habitual amount of alcohol."

The terms Delirium Tremens and Mania à Potu have been considered synonymous. The former may, however be considered the generic term as applied to the chain of morbid action, involving the nervous system, while the latter, might be treated as one of the forms of the disease in its active or extreme stage, being the stage of active cerebral manifestation, or as the term [illegible] literally translated, means, madness from drink. These distinctions have been made by some authors, and, we think, not without reason. Who that has seen the raving maniac, with suffused conjunctiva, dilated pupils, full bounding pulse, can fail to contrast it with the trembling delirium, insomnia, or at

frequent cause of Delirium Tremens. This morbid state generally precedes the lower form of the disease, or manifested in Delirium Tremens proper, although the patient might ab initio exhibit the altered condition which is more noticeable under as Delirium Tremens. As these are all morbid conditions dependent upon an identical cause, it may seem like a distinction without a difference; but it is well that these stages should be definitely bounded out, as they have a marked bearing on the treatment, the duration of the case &c. Mania à Potu seems frequently to occur during the debauch and while the patient is still indulging in excess; while Delirium Tremens seems more particularly to be caused by a sudden abstraction of stimulus. We do not know that these characteristics have been generally noticed; but we venture from our limited observation to dwell on what at first sight, may appear unnecessary.

The symptoms attending the access of the disease are great mental excitement & disquietude,

insomnia anorexia convulsive twitching of the muscles and depression of both mind and body generally.

The development of the disease is characterized by great mental derangement, the patient takes no food, mutters to himself in a wild and incoherent manner, his movements are quick and restless, his eyes red, staring and unsteady, he is tormented by horrible dreams and at times, slumbering in a heavy and stupor condition, from which he awakes in a state of wild alarm, tormented by imaginary friends, devils serpents and other horrible creatures. His pulse is fierce and rapid, his countenance, convulsed and distorted; his respiration labored and hurried, and all who approach him, are looked upon as enemies desirous of doing him injury. He resists furiously all attempts to control or soothe him. He sees terrible apparitions and ferocious enemies threatening to take his life; to escape whom, he will throw himself from a window or precipice without the slightest hesitation.

Anatomical Characters.—The appearances which have been noticed on making an autopsy of a subject, dead from this disease, are various; congestion is sometimes found; at other times, effusion of serum into the ventricles of the brain, and beneath the arachnoid; in many cases no morbid condition can be discovered whatever. The arachnoid is often found in a congested state and there is frequently a deposit of lymph between the membranes of the brain. The liver has occasionally been found enlarged and granulated, and of a yellow color, and the internal surface of the stomach has been seen to resemble the appearance presented by cases of chronic gastritis.

Nature.—It is a contested question whether Delirium Tremens is dependent upon congestion of the brain, or on arachnitis. In the last form we notice the symptoms of cerebral trouble to [illegible] upon increased muscular excitement; while in [illegible] the vital forces are diminished so that the reverse like apoplexy and other nervous affections, may depend upon the same pathological affection

of the brain while the state of the system generally may be of a different nature altogether. The condition in the one case is arterial, in the other venous and both by pressure and increased action, may give rise to the same symptoms of cerebral trouble. We therefore think it proper to refer the symptoms to no particular; not meaning however to intimate that inflammation never exists, because, in a few cases coagulable lymph has been found after death.

The Diagnosis, in some cases is rather difficult; the malady diseases of which Delirium Tremens is likely to be mistaken, are Phrenitis and Typhous fever. The first is distinguished by signs of active inflammation, hot and dry skin, full pulse, &c.; the latter, by the slowness with which the delirium comes on, and the patient being very little inclined towards movement, also by his preferring the recumbent posture which, in Delirium Tremens, is always obnoxious and only assumed when compelled from exhaustion. It is at times, very difficult to distinguish Delirium Tremens from true forms of Mania, particularly when there is

[illegible] I may conclude the comparison between Delirium Tremens and mania, [illegible] on the ground that the mental alteration is characteristic and not inclined to any [illegible] kind of brandy or wine the [illegible] is never rational, giving his answers in a [illegible] and incoherent manner and the hallucinations are always connected with the delusions of sight which is just the reverse in Delirium Tremens the hallucinations being increased by the approach of night, and the patient, if [illegible] expressly, seldom attempts to make a correct [illegible]. The expression of the patient is very different in these diseases, and may be determined by an experienced eye without great difficulty. He may also arrive at a more correct diagnosis by inquiring into the patient's habits, whether he has or has not been addicted to the use of ardent spirits. It could hardly be possible to confound a case of Delirium Tremens with a case of the disease resulting in general paralysis of the insane, [illegible] the history of each case would [illegible] at all their [illegible] [illegible]

to separate the Mania [illegible], or [illegible] [illegible], [illegible] the chronic Mania of the confirmed drunkard.

The Prognosis is generally favorable, more so, of course in young and strong subjects, and those who are not addicted to the habitual use of ardent spirits. In old persons and those of a feeble constitution generally, the symptoms of the disease should be carefully watched, and our prognosis were cautiously given; it should also be governed by our knowledge of the patient's previous habits, his apparent health, strength, age, &c. There are few diseases more easily curable than this, if the proper treatment is made use of; there are, however, at times cases of frightful violence, which rapidly terminate in **coma** or convulsions, and death soon closes the scene. On the other hand, there are cases in which, whether from mismanagement or the condition of the patient at the time of the attack, he sinks rapidly into a perversile, or low typhous state of the system, from which he may be transiently aroused, only to sink the more rapidly into a gloomy state of imbecility or lunacy.

The unfavorable symptoms are, great restlessness, subsultus tendinum, cold clammy perspiration, frequent small pulse want of uniformity in the contraction of the pupils, dryness of the tongue, a comatose accompanied by difficulty of swallowing, and dyspnoea. The favorable signs are repose, silence, sleep, diminution of the pulse and abatement of delirium.

Treatment. From what has been already said of the different forms of Delirium Tremens, it is at once apparent that very different methods of treatment are necessary in each case. For instance if the pulse be quick full and [illegible] face flushed head hot and patient [illegible] to be violent, or in other words more plainly speaking such a condition of things as we have already denominated Mania à Potu rather, then in such a case, the congestion should be relieved by active depletion. A few ounces of blood [illegible] taken; it is better however not to resort to bleeding, unless the indications [illegible] are very well [illegible] as other remedies may subserve the same purpose

with less danger of doing the patient harm. Active purgatives are sometimes of great service; they should be combined with stimulants such as the preparations of Ammonia and the volatile oils, so as to guard against too great depression. Should purgative injections be given, they also should contain Asafoetida, Turpentine, or other stimulating fluid. Cold applications to the head, the shower bath, cold douche, &c. Sinapisms should be applied to the extremities and epigastrium, and the patient may be very much soothed by bathing the feet and combing the hair, and by resorting to warm pediluvia, &c. If the skin is hot and dry much benefit may be derived from sponging the surface with warm water. Antimonials also tend to diminish the vascular excitement unless contra-indicated by gastric complications. Emetics are also recommended in case there is [illegible] the stomach contains alcoholic fluids. Opiates, the Bromide of Potassium, Hyoscyamus, Hydrocyanic Acid, Musk, &c, have all been employed with varied success. In this

the active or chronic form of the disease commonly
known as Tic, often and characterized by great
violence and paroxysmal excitement. We believe the
Bromide of Potassium was efficacious. Having learned
the Bromide was highly recommended in the
treatment of this disease by both Professors McClurg,
and Miles of the School of Medicine of the Uni-
versity of Maryland we determined to test its
virtues on the first opportunity. On the evening
of the 10th of May 18 the following case passed
under our observation. Mr B— a young man
about twenty eight years of age sanguine
temperament, when given to the habit of inter-
mittent periodical use of ardent spirits
left the spring from the effects of a week's debauch.
He present before us in a great state of nervous excite-
ment, eyes staring and suffused, face flushed
skin hot and dry, pulse full and hard, one
hundred and twenty to the minute, muscles of
breast and hands twitching convulsively.
We immediately made cold applications to the
head and warm pediluvia to the extremities

and gave twenty grs of Bromide of Potassium in a solution of aqua camphor and followed it up by giving ten grs every fifteen minutes, until fifty grs were administered; the effect on the patient was marked, his face became less flushed his skin became moist and pleasant, the subsultus tendinum ceased, and his pulse was reduced from one hundred and twenty, to eighty beats in the minute and very soon he subsided into a quiet sleep. The following morning we found that he had again been indulging in alcoholic libations, greatly to his detriment. We immediately forbade the further use of the stimulant. After two or three hours had elapsed he appeared to be in a very asthenic condition, pulse one hundred and ten small and frequent, insomnia continued as usual, and patient very nervous. These then are the symptoms of the asthenic or passive condition, or, more correctly speaking, [illegible] form of Delirium Tremens, proper. We renewed the administration of the Bromide of [illegible] in a little

opium brought on as before, in combination with the Salt Petre. No, in the dose of ten or twelve grains of an hour, would eight grs had been given. The effect as before lost a diminution of the pulse, and "a slight reeling", as the patient expressed himself "of want of power to control over the work of the Heart" — a convenient difficulty in micturition. Sleep not being induced, however we thought it expedient to discontinue the use of the Opium, and we then had recourse to the Tincture Opii and gave twenty five gts ~~xxxxx~~ every half hour until as much as ten hundred [illegible] gts had been taken when we decided the medicine having had the desired effect, intermitted. One fact worthy of notice was that the pulse which had been before taking the Opiate, as low as eighty to the minute rose under the Opiate treatment to one hundred [illegible]

Just here, we would like to [illegible] a little, a few more words in [illegible] and [illegible] to great advantage,

than any of the other preparations of Opium, on account of its more stimulant properties, and the readiness with which it acts. The morning [illegible] the patient appeared very much improved, and was perfectly rational, although, as a matter of course, was in a very nervous state, generally. We administered a saline purgative and a mixture composed of the Bromide of Potassium, [illegible] with the very good effect [illegible] to the [illegible] [illegible] [illegible] great nervous and unable to sleep, we gave [illegible] Chloral [illegible] most excellent effect, producing sleep in a [illegible] sufficiently [illegible] no trace of the [illegible] valuable hypnotic [illegible] remarkable [illegible] we think it [illegible] to [illegible] Opium, at least in this particular [illegible] we are happy to state, improve[illegible]

rapidly and in a few days was able to attend to his ordinary avocation. From what we have already heard and seen of the Bromide of Potassium we are compelled to arrive at the conclusion that it is more valuable in active or sthenic cases characterized by excessive determination of blood to the brain, full bounding pulse and congestion of the cerebral mass generally, or more plainly speaking, Mania à Potu, rather. We very naturally conclude that delirium tremens, rather being always characterized by asthenia, an feeble pulse, and being of a passive and adynamic character generally, the Bromide of Potassium would seem to be rather contra indicated, a non stimulant treatment be necessary. We would therefore, prefer to use, in these cases some one of the preparations of Opium, the Acetate of Opii being preferred for reasons given above or Valerian, Asafoetida, Sulphuric Æther, &c. As to how the Bromide of Potassium acts in these cases whether as a hypnotic or sedative, we are unable to say positively; but are rather inclined to think,

In our limited experience with the drug, it is more of a sedative than hypnotic although possessing both qualities to some extent. The following, taken whole, which we take from an unanswerable on the subject by Surgeon J. H. Bill, M.D. U.S. Navy, Director of the U.S. Naval Laboratory, Philadelphia Pa. published in the American Journal of the Medical Sciences, for July 1865 and entitled "Experimental Researches into the action and therapeutic value of the Bromide of Potassium", explains more in the modus operandi of this valuable drug, and accords in a great measure with our limited experience and observation, and we therefore to not know that we can do better than transcribe the same.

"An person in health can go to sleep at will, by taking a dose of Morphia, nay, against his will. In health, Bromide of Potassium, in a single dose, is nearly without effect. Save as an anti-phrodisiac. In diseased states, producing insomnia, it allows (not compels) sleep, by

cutting off the communication between the irritation and the sensory ganglion or ganglia, taking cognizance of the same. Morphia does not act so. If sleep be induced by Morphia in these cases, it is compelled. The action is worked on the centre, not on the extremity. The cerebrum is overwhelmed while the irritant may act and be felt to the last. Bromide, when it induces sleep, acts cerebrally, like Chloroform. Then too, how different is the sleep of Morphia from that of Bromide of Potassium. In that of the former we have the intellect and higher centres first involved. A man can be but partially aroused. He can see, hear, feel, but he cannot think. He is [illegible] intellectually asleep. The cerebrum has been acted on primarily. When Bromide of Potassium produces sleep, we find a different condition present. The patient can be perfectly aroused to full intellectual life, just as from natural sleep, while the local anæsthesia may remain. In fact, it is a natural sleep, from which he is

aroused. Is not this evidence that the cerebrum is not acted on at all; and if not the cerebrum where can we [illegible] the action than in the parts where the diseased state is located, and whence the disturbing action flows? Whether or not we call Bromide of Ki[illegible] an hypnotic, we must refuse it class [illegible] Morphia, Hemp, [illegible] doubtless cases of insomnia, successfully treated with Bromide of Potassium, can be accounted for, and, as in cases of delirium [illegible] that the Bromide of Potassium can cut off communication between the urethra, and the cerebrum, preventing sexual excitement, so in cases of wakefulness depending on irritation of the alimentary canal, it can interrupt communication between the irritable mucous membrane, and the cerebrum and permit the latter organ to take into sleep. When Bromide acts soporifically, in these cases of insomnia, (no doubt a large class) due to excess of blood in the head, its action is only secondary, as is the carbonic acid gas retained in the blood, which acts

soothingly on the excited cerebrum. There is nothing to show that the Bromide is a derivative, or acts like food or spirits, the flesh brush or cold douche, in these cases of cerebral hyperaemia."

We think that the condition of insomnia results from opposite conditions of the cerebrum. (1) a condition of active hyperaemia, or cerebral debility from diminished action of the heart and arteries. We are unprepared to say that the Bromide acts as a derivative in the strict sense and meaning of the term; by engaging the activities of other functions and thus diverting from the deranged organ, and ultimately relieving the same. Nor are we prepared to give an intelligent rationale of its modus operandi; as to whether its [illegible] influence is due to the retention of carbonic acid which our author leads us to suppose is a property of the Bromide: but this we do know, that with diminished cardiac action, cerebral excitement is subdued and [illegible] results. Whether this sedative property is due to a carbonization of the blood, or [illegible]

in man, not continuously in the smaller doses, nor [illegible] chemical transformation [illegible] made out to determine. Dr. Robert Amory, in a paper read before the Massachusetts Medical Society, from experiments performed on himself, and other animals, deduces the following conclusions:-

"1st Bromide of Potassium is easily absorbed by the mucous membrane wherever they are placed in contact."

"2nd This drug is readily absorbed by the skin, when the water in which it is dissolved is below the temperature of 78°F. If the temperature is above 96°F. it is not absorbed."

"3rd The elimination is conducted by the skin and kidneys; as the saliva is a secretion, its presence in this fluid is not a proof of its elimination."

"4th In therapeutical doses, Bromide of Potassium is not eliminated by the intestines or lungs."

"5th Bromide of Potassium passes out of the system without decomposition. As most of the chemical transformations of bromine take place according to [illegible], in the laboratory of the

ridiculous Dr. Bill's theory in regard to the interchange between urea and urine in the blood, is probably erroneous. If there is an interchange it is in the kidneys or tissue of the body (in other words) that the transformation takes place."

"4th. The effects of the drug are produced by its direct action upon the blood vessels, or the vaso-motor system which control the contraction of these vessels, which explanation may account for all the physiological or therapeutical conditions brought on by the exhibition of the drug."

"5th. There is probably no different or opposing action in proportion to the dose administered, which cannot be said of all drugs. The larger the dose, the more intense and the longer the action on the vaso-motor system

6th. Its action upon the spinal nervous system is secondary, and dependent upon that of the vaso-motor nerves. That it affects [illegible] [illegible] is a [illegible] of blood

is not contrary to the known laws of physiology. Lack of healthy resistance to disturbing influences allows the blood vessels to be dilated and consequently discharged. The presence of the drug stirs up the opposing influence, which contracts the vessels. This influence would be excited upon the diseased portion of the system more powerfully than upon the healthy portion."

From the above remarks, it would seem the Bromide passes out of the system without decomposition and seems to be somewhat at variance with Dr. Bill's theory. Our own limited observation inclines us to the views of Dr. Anorey, viz:- that the Bromide acts on the vaso-motor system. The various affections of the nervous system known as the neuroses, are still but little understood, and in many cases we are compelled to regard them as *opprobria medicorum*.

We trust the experiments with the Bromide will bring to light more rational methods of treatment, and as the disease we have

considered as frequently the parent of many other disturbances of the nervous system, we have with great diffidence discussed this subject only as a preliminary to others, who have opportunities for a wider field of experiment and observation.

AN

Inaugural Dissertation

ON

Opium

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

P. Livingston Murphy

Of

North Carolina

Session of 1870+71

Opium

Opium is the concrete juice of Papaver Somniferum, an annual plant growing in Asia, Europe & America*. It is obtained by making an incision in the unripe pod from which the juice exudes. After being collected into suitable receptacles & allowed to concrete to a proper consistency it is made into irregular masses varying in size & wrapped with leaves to prevent their adhering together.

Good opium is of a reddish brown or fawn color in mass, yellowish brown in powder. The powder is adhesive at a slight elevation of temperature. Its odor is strong, narcotic & peculiar; its taste bitter, slightly acrid & nauseous. It is inflammable. Water alco-

*c. it. d

hol & the dilute acids extract its virtues
but soluble in Ether.-
Opium, like some other vegetable substances,
contains a gumming & extractive matter, resin,
a substance resembling caoutchouc, fixed oil,
albumen & various minerals.; besides these
it contains morphia, narcotina, codeia, nar-
cein, thebaina, papavarina, & opiana having
alkaline properties; meconin & porphyroxin
which are neutral & an acid called meconic
acid & an odorous principle peculiar to op-
ium Morphia exists in it combined with
meconic acid. Of all these morphia is
the only one much used Narcotine,
codeia & narceia are recommended for some
diseases. The others are not used or so rel-
ative that they are [illegible] of [illegible]

notice — Incompatibles — Many substances throw down [illegible] which however do not effect its medical properties Alkalies precipitate its alkaloid astringents containing gallo-tanic acid, as well — Lime throw down insoluble tannates of the same alkaloids. Both of these are soluble in alcohol or an excess of acid

Effects upon the System

There is a feeling of warmth & weight in the stomach directly after a dose of opium [illegible] varying according to the form in which the [illegible] is administered; there is a feeling of ease & comfort — The powers of the body seems to be raised; the capacity to act & bear fatigue is [illegible]

[illegible]

[illegible]

[illegible]

through it is scarcely noticed. If the dose has been large enough to produce narcotism the patient now falls into a profound sleep from which [illegible] for seven to ten hours [illegible] the condition of the patient & the dose taken. [illegible] upon waking a depressed state of the system [illegible] weak [illegible] [illegible] nausea & even vomiting.

A diminution of sensibility attends the narcotic effects of opium which begins about the time the action of the drug commences [illegible] into the second stage of depress[illegible]

[illegible]

is taken there is an increased action of the heart - the pulse being full & strong This [illegible] through the general excitement - after which the pulse regains its former slowness or may be even slower The respiration is increased at first - but - diminishes as the pulse does - Opium lessens the mucous secretions so also the secretion of the liver & kidneys - It possesses marked diaphoretic powers The stomach may be excited at first - but is soon followed by a diminution of its function Digestion is much impaired & the appetite lost = The bowels are for the most constipated -

The effects of an overdose of opium are viz at first drowsiness followed by

a profound sleep, [illegible] suffusion of the countenance, want of expression eyes closed & pupils contracted, pulse slow full & strong, respiration slow & labored voluntary muscles & skin relaxed.

The patient who could be roused at first is now in a profound coma & can no longer be wakened. The respiration becomes stertorous & slower until there is an appreciable interval between each act & finally death, unless proper remedies have been [illegible].

Treatment = Evacuate the stomach by sulphate of zinc or ipecacuanha or some other emetic or by release of the stomach pump. Keep the patient in constant motion & try to arouse him by dashing cold

cold water in his face by whipping him pinching him or some other rough treatment - Give strong coffee or tea or what is better perhaps, an enema of caffeine - Apply Galvanism one pole over the phrenic nerve at the sterno-clavicular articulation & the other over the diaphragm

Mode of operating

Opium is absorbed as has been proved by detecting in the urine & other secretions. Children have been affected by nursing women who have taken a dose of opium - This is agreed on by all

Opium seems to effect the nervous centres especially the cerebrum & medulla oblongata as seen by loss of sensibility & the [illegible]

Therapeutic Application

The great therapeutic applications are [illegible] to relieve pain & produce sleep. It has been somewhat superseded of late however by [illegible] (chloral). [illegible] purposes when its use is not contraindicated. The following are some of its most important indications

In typhus [illegible] & bring on sleep, it is effective: also in controlling the diarrhoea of the latter. It subserves the same purposes in calmus delirium &c in erysipelas fevers. Given at the beginning of a paroxysm of intermittent fever it shortens the attack & renders it less severe. It [illegible] attend [illegible]

in the cure by thus aiding the preparation of cinchona to do their work. Opium is useful in insanity when it is not active or when there is a determination of blood to the brain. Sleep is the "sine qua non" to a recovery. [illegible] "opium [illegible] causes this, also moderating the violence & shortening the attack. In epidemic menin-gitis opium is by far the most useful of the many remedies employed for the cure of this disease. Epidemic [illegible] [illegible] tic convulsion or bodily pain may be grat-ly ameliorated by an opiate. It has been [illegible]d useful in some cases of tetanus. It is rather palliative than curative in neu-ralgia though it does allay the agonizing sometimes. Some assert that opium is con-

tra indicated in the first stage of acute bronchitis while others advise its use. Among the latter is Prof Austin Flint whose explanation for its use seems to me to be rational It should be prescribed with caution in coughs as it should in every other disease. Opium is useful at the onset of an attack of catarrh either preventing its further progress or greatly modifying it. For diarrhoea opium must be administered with some discretion. If the diarrhoea be caused by crude articles of food in the alimentary canal it should first be cleared out by a laxative & then we may give an opiate. Chronic diarrhoea should be treated by opium because very often food passes through the bowels without being digested

when it would be if it could be detained there. There is much difference of opinion in regard to the administration of opium in dysentery. It is valuable to relieve tormina & tenesmus & in most cases to receive the [illegible] it [illegible]. It should not be proceeded by a [illegible] "Opium without being essential [illegible] in chronic diarrhoea is [illegible] an adjuvant to other remedies". [illegible] agree that some form of opium is invaluable in the treatment of sporadic cholera [illegible] the [illegible] cases of [illegible] in epidemic cholera have been less with the opiate [illegible] than with any other. It is recommended [illegible] as a prophylactic during an epidemic of this disease. For peritonitis opium is the chief reliance. It arrests or greatly retards

the peristaltic movements & thus relieving the pain attendant upon this disease It is used at in
is as in other inflammations by rendering the
system more tolerant of the disease Opium is
superior to any other single remedy in dia
Muscular rheumatism may be cut short
in Gout though not cured is greatly alle
by this medicine In lacerated gun-
shot wounds or compound fractures the relief
afforded by opium & the support it yields
to the nervous system are often so great as
to save the necessity of amputation & thus
save the limb if not life itself when the at-
tempted - Opium is much used to relieve
spasm or irregular muscular contractions
attended with severe pain. It is highly
recommended in spasms of the glottis

Circumstances modifying the effect of Quinine

[illegible] are [illegible] able
to its influence in proportion than adults. Sex also
plays its influence more so - [illegible] & more easily affected
The condition of the patient & amount of urine
he is suffering. Whether he is strong or weak,
whether he is in habit of taking the drug or not.
There are various idiosyncrasies and cannot be
any white there are not affected by very large
doses.

The Preparation of Quinine

The following are some of the most im-
portant preparations of Qu.

Pilula Aloes. It is composed of five [illegible]
[illegible] containing 1 gr of opium. Dose one of these
[illegible] Spermaceti [illegible]

This is made with opium ipecac & sulphate of potassa so that 10 grs of the powder will contain 1 gr of opium 1/5 of a grain of ipecac & 5 grains of sulphate of potassa — Acetum opii — is prepared thus

℞ opii ozv nutmeg ozj saffron grs CL sugar ozVIII dilute Acet-acid 2,S Macerate for 24 hours in dilute Acet-acid — Percolate & dissolve the sugar & the [illegible] acid [illegible] Dose ℥j VIII

Tinc Opii ℞ Pulv opii ozij SS — mix with pint water 3 days Percolate & add enough dilute alcohol to make 2 pints Dose 13 minims or 25 drops

Tinc Opii Acetata Rub ozii of powdered opium in ℥℥XII of vinegar add alcohol O SS — Macerate 1 or 2 days & filter Dose ℥j X or gtt ℞X

Tinc Opii Camphorata ℞ Pulv opii & benzoic acid each grs LX oil of anise f℥j camphor grs XL dilute alcohol O ij Macerate for 7 days & filter dose f℥j

Lanc [illegible]

[illegible] and a Tincture except the resinous

odorous principles are precipitated by ether

& [illegible] deodorized [illegible] 15 minims or 25 drops

Vinum Opii. ℞ Pulv Opii ozij cinnamon & cloves

in powder each grtij. sherry wine ℔ ij Macerate

for 7 days with the wine frequently & then percolate

Dose. ♏ xii or gtt xi to xii —

Morphia is obtained by precipitation with

ammonia from a solution of opium in water &

[illegible] — Morphia is crystalline without

[illegible] but a bitter taste, imperfectly soluble

in [illegible], [illegible], [illegible] [illegible]

very readily in not alcohol. It is also soluble

in the fixed & volatile oils & caustic potash.

It has an alkaline reaction. Owing to its

insoluble character it is seldom used.

& in its stead the salts are used – The only difference in the preparation is the different acids. The sulphate of morphia is the one most use in this country & is prepared by treating morphia with dilute sulphuric acid – & crystallizing – the crystals consisting needles white in very lustre intensely bitter soluble in alcohol & water Dose from 1/6 to 1/4 of a grain

Respectfully Submitted

Dec 28th 1870 P. L. Murphy

Approved

AN

Inaugural Dissertation

ON

"Inguinal Hernia"

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Wm. Alexander Baylessa,

of

St. Leonard, Louisiana.

Session of 1870-71.

[illegible] of [illegible]
because my duty to write an essay on
[illegible] subject [illegible]
[illegible]. The subject I have chosen,
I hope [illegible] will appear to [illegible]
of [illegible] [illegible]
[illegible] and the same [illegible] feeling
ability to be [illegible] [illegible]
[illegible] [illegible]
stand as an opprobrium against me
in the [illegible] of any [illegible] [illegible].
I will now [illegible] the subject [illegible]
I allude [illegible] [illegible]
is meant a portrait of [illegible],
which occupies the whole or a por-
tion of the [illegible] room [illegible]
[illegible] [illegible] [illegible] [illegible]
the sarcophagus or labarum.

The abdominal viscera, however, do not [illegible] healthy condition, or affected by any disease, or malformation, [illegible] in not all circumstances the viscera [illegible] abdominal cavity; but there exist certain natural openings in the abdominal walls for the passage of vessels, through which portions of the viscera are liable to escape, either by compression or through the production of efforts. The opening through which this herniae escapes is situated at the groins, a canal in the broad abdominal muscles, which gives passage in the male to the spermatic cord, in the female to the round ligament of the uterus.

Before proceeding to inguinal hernia proper, it is necessary to say some to

the relative of the parts concerned in the neighborhood of the inguinal canal, in [illegible]

Going before backwards, we have first [illegible] fascia which in this region consist of [illegible] plane. [illegible] entire, containing adipose tissue in its meshes, & is continued as a [illegible] of the [illegible] situation it changes its character, becoming thin & destitute of adipose tissue, & also [illegible] in forming the [illegible]

[illegible]

of the [illegible]. The [illegible] layer of the
fascia is connected to the external oblique muscle by delicate areolar tissue.
It is thin, [illegible] in structure, [illegible]
adherent in the middle line to the
linea alba, below to the whole length
of Poupart's ligament & upper part of
the fascia lata. It forms a sheath to
Gangelion around the outer surface of
the cord, which blends with the super-
ficial layer & is continuous with it
laterally & the scrotum. Between the
two layers of superficial fascia are
the superficial epigastric, & superficial
external pudic arteries & accompanying
veins, also the lymphatic vessels which
take the same course as the blood-vessels.
Beneath the superficial fascia is the

[illegible]

The internal oblique muscle, lying on the outside of the rectus, is the external abdominal ring. It is oblique in direction, extending from above downwards and inwards, according to the course of fibres of the internal oblique muscle. It is about generally an inch ~~from~~ an inch, & sometimes half an inch.

It is bounded below by the crest of the pubes, on either side by the pillars of the aponeurosis, & above by the intersecting fibres, which originally from Poupart's ligament & cross the upper angle of the ring, to give it strength & to prevent divergence of the pillars from an action.

The internal or inferior pillar is formed by the portion of Poupart's ligament, which is attached to the spine of the pubes.

The internal sphincter fibres intermingle with those of the opposite side over the front of the urethral orifice. The use of this arrangement may prove passage in the direction of the male, round the neck of the female, they are both inverted in their passage through the urinary by a tubular prolongation of the internal fascia round the outer surface of the vesicle. Beneath the above mentioned muscle is the internal oblique muscle. Its large fibres are thin & of a pale color. In structure the outer part is muscular, the inner part tendinous. These fibres which proceed from the outer part of Poupart's ligament, run downwards in front of the vessels & by a tendinous membrane be attached to the pectineal line, most of the inferior, i.e. [illegible]

with the tendon of the transversalis muscle,
forming the conjoined tendon of the internal oblique and transversalis muscles. The transversalis muscle is very small behind as the internal oblique muscle does, finally fleshy, shortly in front in the abdomen; see below the deep seated muscles ramify the circumferential vessels, which leave a space for this lesser vessel. The lower fibres of the transversalis muscle arising from somewhat the same point with those of the internal oblique, and also from the ribs, to be inserted in common with the internal oblique muscle also forming the above mentioned conjoined tendon.

The tendon is attached to the pubic bone, the internal abdominal ring & leaves a

strengthen the abdominal wall, where it is weakened by the passage of the spermatic cord, also it receives additional strength from the triangular ligament, a band of tendinous fibres elevated from the pectineal line, upwards inwards over the inguinal tendon to the linea alba.

The cremaster muscle is a slender muscular fasciculus, having its origin & insertion similar to that of the lower fibres of the internal oblique muscle, & which surrounds the spermatic cord by a series of loops. The transversalis fascia is a thin aponeurotic membrane which lies between the transversalis muscle & peritoneum, the back of which it is closely connected by cellular tissue.

Direct, (Hernia) below & the outer side of the fascia

vessels is attached to different parts of Poupart's ligament, where it is continuous with the iliac fascia; on the inner side of the vessels it is attached behind the conjoined tendon of the pubes and rectus line. In the inguinal region it is generally thick & dense in structure, affording material resistance to the muscles in supporting the viscera, but as it ascends to the diaphragm it becomes thin & cellular. In this fascia that midway between the anterior superior spine of the ilium & spine of the pubes, & about half an inch above Poupart's ligament, is situated the inlet and abdominal ring. It is an oval depression with its long diameter directed upwards & downwards, varying in size in different persons

being larger in the male than the female.

From this ring the fascia recti of each side round the edge of rectus begins its course through the abdominal parietes, also from the edge of this ring a fine elastic membrane (fascia transversalis) is continued round the cord & testis, enclosing them as a distinct part. The epigastric artery bears a very close relation to the internal abdominal ring. It ramifies between the transversalis fascia & peritoneum. From its origin with its accompanying veins, it passes obliquely upwards & inwards to the lower inner margin of the internal abdominal ring beneath the commencement of the cord, the vas deferens curving around it.

The peritoneum is the inner surface of

The cause of deformity may be ascribed to the strong & firm attachment of the head of the rod to this fibrous band & consequently to ultimately, that, rendering the movements of the articulated rod in the socket. The ligaments of Spermatic cord contains the spermatic cord & the vessels. The round ligament in the female.

It is oblique in direction, inverted towards median line, lying parallel with immediately above Poupart's ligament, measures from one to half a two inches in length. It is bounded in front by the aponeurosis of the external oblique muscle. Behind by the internal oblique muscle for its outer third, behind of the transversalis fascia, respiratory tendon, closely the

called fibres of the internal oblique & transverse muscles, & below by a portion of the fascia lata. Having now examined the parts concerned in Inguinal Hernia, we pass to Inguinal Hernia proper, of which four varieties are recognized, viz. oblique, direct, congenital, & encysted or infantile. Oblique Inguinal Hernia is that form of protrusion which takes the same course as the Spermatic cord, & which occupies the whole course of the canal, however it may be complete or incomplete; it enters when it passes the external abdominal ring into the scrotum, incomplete so long as it is contained in the canal. Oblique Inguinal Hernia is the commonest species of rupture, & would seem more frequently were it not for

the oblique of the wall. In this form of hernia the protruded sac is so tied as to form it a fold of peritoneum, which forms the hernial sac, which is drawn from the inter fascia of that serous membrane. The tumor as it passes along the inguinal canal & the scrotum is successively clothed with the coverings given in the spermatic cord, first the transversalis fascia, which becomes thick & lamination constituting the fascia propria of the sac, next as it passes under the internal oblique muscle it receives the cremasteric fascia, & lastly, as it passes out of the external abdominal ring it receives the intercolumnar fascia;

Lect: The various coverings of this form of hernia after it has passed through

the cord may be from without inwards as follows; integument, superficial fascia, intermuscular fascia, [illegible] fascia, transversalis fascia & peritoneum.

The relations of the spermatic cord, testes & epididymis to the inguinal hernia are of great importance. The hernial sac must invariably lie direct in front of the cord of the spermatic cord, unless pushed to the side by the weight of the tumor. It sometimes extends behind the testes in consequence of the intimate connection of the cord with the tunica vaginalis; however, when it does extend behind, the testes will be found to lie at its lower & back part. The epididymis, being the same relation to the testes & inguinal hernia as it does

to the spermatic cord, lying in the outer side of, behind its sheath. Oblique inguinal hernia in the female follows the round ligament of the uterus through the inguinal canal, as it follows the spermatic cord in the male. It is coming from the external ring, the tumor bulges in the labia pudendi. The coverings are the same as in the male with the exception of the cremasteric fascia, which is absent in the female. Direct inguinal hernia does not follow the whole course of the inguinal canal, but protrudes through that part of the abdominal wall internal to the epigastric vessels, passing directly through the abdominal parietes in the external ring. At the part of the abdominal wall through which

[illegible] is recognized in its posterior aspect a triangular space (Hesselbach's fossa), bounded internally by the epigastric artery, externally by the margin of the rectus muscle, and below by Poupart's ligament. The conjoined tendon is stretched across the inner two-thirds of this space, the remaining portion being filled in by the transversalis fascia. Two varieties of direct inguinal hernia are recognized. In common cases the protrusion just below the cord takes a course of the obliterated umbilical artery, between it & the outer edge of the rectus. In this form of direct inguinal hernia the protrusion takes place directly upon the external abdominal ring. In this variety

it pushes before it the peritoneum, transversalis fascia, conjoined tendon of the transverse & internal oblique muscles, which may be either gradually distended in front of it, forming a complete investment for it, or forced through its fibres, or the conjoined tendon may be partially ruptured; & as the hernia passes through the external ring it receives the intercolumnar fascia, & finally is invested by the superficial fascia & integument.

The other variety of direct inguinal hernia which is of less frequent occurrence, takes its protrusion also with obliterated umbilical artery. In this situation the protruded viscus carries before it the peritoneum, transversalis fascia, it then passes into the inguinal canal by the

outer side of the conjoined tendon receiving a partial investment of the cremaster or fascia; it then passes along the inguinal canal to the external abdominal ring, where it receives an investment of the intercolumnar fascia & lastly the superficial fascia & integument. The coverings of this form of hernia are very nearly similar to the oblique form of protrusion. In direct inguinal hernia the spermatic cord lies to the external & posterior side of the sac. The epigastric artery is also on the outer side, sometimes crossing over the neck of the sac. Direct inguinal hernia is much less frequently met with than the oblique variety & is also rarely found in the female. Congenital hernia is that form of hernia, where the peritoneum which accompanies the cord & testes

[illegible] is [illegible]. This [illegible] differs [illegible] from the [illegible] inguinal hernia in the absence of a true peritoneal sac, the protruded parts lying within the tunica vaginalis in contact with the testes. The peculiarity consisting in its descent [illegible] along the canal left open by the descent of the testes. This variety of hernia is thus designated, in consequence of a condition necessary for its formation about the time of birth, however, the same variety is found in the adult, in consequence of the funicular portion of the tunica vaginalis remaining patent, closed, or so constricted that under sudden effort the septum is broken through & the gut falls into the tunica vaginalis. The fourth variety of inguinal hernia

Congenital or Infantile is that form of protrusion or hernia, which descends the inguinal canal behind the bundle of parts which accompanies the vas deferens in the inguinal canal. The sac or pouch is lined by peritoneal tissue, but the hernia originates in the inguinal canal, remains within it. The protruded mass lies in a distinct sac, as it traverses the scrotum, and is covered in front by the tunica vaginalis, which in case of an operation would necessitate the opening of three layers of parts, the first covering being the layers of the tunica vaginalis, the third the outer layer of the sac. The differential diagnosis of Congenital inguinal hernia can only be made, when circumstances

and the tumor moderate in size; but when the oblique hernia is of long standing and of large size the inguinal canal takes its oblique, the internal ring approaches the external ring, while at the same time, the epigastric artery is borne inwards, which curves along the inner side of the sac, however, when the oblique hernia is of small size recently formed, it is narrow elongated, larger than in the direct variety and its inclination is towards inwards. It is also attended with a degree of fullness in the inguinal canal and tenderness upon pressure. After emerging from the external ring the tumor will be found directly over the spermatic cord. In direct inguinal hernia when of small size is

globular, its situation is varicocele
ulcerous. There is no tenderness or fullness
in the inguinal canal, as the protru-
sion is more immediately over the
pubes, & the Spermatic cord lies behind
& to its outer side most usually.
Congenital Hernia closely resembles
that of ordinary oblique. If Scrotal
the tumor is much rounded & the neck
narrow & constricted. The testis can
not be felt distinct & separate from
the tumor, but as it were imbedded in
the mass, though, it is sometimes felt at
the lower & back part of the scrotum.
Encysted Hernia presents no characters
by which it may be distinguished
from the ordinary congenital variety.
Operations for the relief of the diffi-

[illegible] forms of inguinal hernia are effected, either by the reduction of the tumor by taxis, or by division of the stricture. In many cases that are here referred to overcome, the bulk of the tumor & the resistance of the parts around the ring. These obstacles may be lessened or removed by placing the thigh [illegible] ing the body forwards, thereby relaxing the abdominal muscles & diminishing the tension exerted on the [illegible] opposite parts of the groin, the direction which the tumor follows through the abdominal walls, should influence the direction given to the pressure required in reducing it. In congenital with the testes, the last hold, otherwise [illegible] are of [illegible]

to military measures. If the taxis fails in giving relief, an operation for dividing the stricture must be resorted to. The seat of stricture in oblique hernia will be found either at the external ring in the inguinal canal, or more frequently at the internal ring. Occasionally, the sac itself is the cause of the constriction. In the latter case the opening of the sac will become necessary for the replacement of the hernia. In both varieties of direct inguinal hernia, the seat of stricture will be found most frequently at the neck of the sac, or at the external ring. In making the incision the epigastric artery must not be injured, as a sufficiently distinctive diagnosis can not always be made.

Femoral hernia, most frequently the incision should be made upwards & inwards from the middle of the ring. The after treatment to prevent protrusion requires the application of a well fitted truss, or if the patient desires it, an operation for a radical cure may be resorted to.

Now gentlemen, trusting that I have said as on this subject seemed expedient, will close, wishing you much success, prosperity & happiness & the University of W.D. an enduring fund.

W. A. Bayless

M.D. Lebanon

Lo

AN

Inaugural Dissertation

ON

Ergota.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

John George Womble

of

Baltimore Md.

Session of 1870-1871.

In presenting this Thesis for your approbation. I feel that it is but just that I should acknowledge that I derived from Authors the "materiel" used. I feel that it is but just that I should acknowledge that it has many imperfections, but hope as Mankind or rather Womankind has been so greatly benefitted by the imperfect grain of the Secale Cornutum, that the imperfections of my Thesis may also result in good—

Ergota.

The diseased seeds of Secale cereale
U. S. The seed injured by a
parasitic plant. Lond.
A peculiar excrescence sup-
-posed to be caused by a
parasitical fungus. Dub.
An undetermined fungus,
with degenerated seed of
Secale cereale. Ed.
Spurred rye; Secale cornu
-tum; Seigle ergoté, Fr.;
Mutterkorn, Germ.
In all the Graminaceae
or grass tribe, and in
some of the Cyperaceae,
the place of the seeds

is sometimes occupied by a morbid growth, which from its resemblance to the spur of a cock, has received the name of ergot, adopted from the French. This product is most frequent in the rye, Secale cereale of botanists, and, having been found, as occurring in that plant, to possess valuable medicinal properties, was adopted in the first edition of the U.S. Pharmacopoeia

under the name of secale cornutum or spurred rye. In the edition of 1840, this name was changed for Ergota, in conformity with the nomenclature of the London and Edinburgh Colleges, by whom the medicine had in the mean time been adopted. Considerable difference of opinion has existed in relation to the nature of this singular

substance. It was at one time generally thought to be merely the seed altered by disease; the morbid condition being ascribed by some to the agency of an insect by others to excess of heat and moisture. A second opinion considered it a parasitic fungus, occupying the place of the seed. This was entertained by De Candolle, who called the fungus Sclerotium Clavus. According to a third

and intermediate opinion the ergot is the seed diseased and entirely perverted in its nature by the influence of a parasitic fungus, attached to it from the very beginning of its development. This view was put forth by Mr. Léveillé, in a memoir published in the Annals of the Linnaean Society of Paris for the year 1826. According to this writer, a soft vascular tubercle may be seen, at the earliest stage of the flower, surmounting the germ, the character

of which it changes, without preventing its growth. The germ becomes of a dark colour, and, increasing in size pushes the tubercle before it, which also expands, and exudes a viscid matter, which spreads over the germ, and, drying upon its surface, gives it a thin yellowish coating. The tubercle was considered by Dr. Léveillé a fungus, and named Sphacelia segetum. The more recent observations of Mr. Quekett of

London confirm this general view of the nature of ergot; but had to a different conclusion as to the character of the parasitic plant. According to Mr. Quekett, the beginning of the growth of the ergot is marked by the appearance, about the young grain and its appendage, of multitudes of minute filaments like cobwebs, which run all over its parts, cementing anthers and stigmas together

and of a white coating upon the surface of the grain, from which, upon immersion in water innumerable minute particles, separate and after a time rise in the fluid. These particles when examined by the microscope, prove to be the reproductive agents, germs, or sporidia of a species of fungus and may be observed to sprout and propagate in various ways under favourable circumstances. Their length upon the

average, is about $\frac{1}{4000}$ of an inch. The filaments are the results of the growth of these singular germs. The sporidia and filaments do not increase with the increase of the ergot; and when this has projected beyond the glumes and become visible, it now has lost a portion of its white coating and presents a dark violet colour. It now increases with great rapidity, and attains

its full size in a few days. When completely developed, it exhibits very few of the filaments or sporidia upon its surface. But Quekett believes that the germs of the fungus emit their filaments through the tissue of the ergot when young and tender, and that, as this increases, it is made up partly of the diseased structure of the grain, and partly of the fungous matter. The fungus was named by Quekett Ergotaetia abortifacens.

This view of the nature and cause of ergot is strongly supported by the asserted fact, that the microscopic fungus has an existence independent of the morbid grain, being found in various other parts of the plant, and growing even when entirely separated from it; and that the sporidia or white dust upon the surface of ergot if applied to the seeds of certain Graminaceae before germination, or sprinkled in the soil at the roots of

the plants after they have begun to grow, will give rise to ergotized fruit. That the ergot is not itself a peculiar fungus, but the perverted grain, is evinced by the frequent remains of the stigma upon its summit, by the scales at its base, and by the circumstance that in some instances only a portion of the seed is ergotized. How far its peculiar medical properties may depend upon the morbid substance of the grain, and how far on the fungus matter

associated with it, has not been determined. The ergot usually projects out of the glume or husk beyond the ordinary outline of the spike or ear. In some spikes the space of the seeds is wholly occupied by the ergot, in others only two or three spurs are observed. It is said to be much more energetic when collected before than after harvest. Rye has generally been thought to be most subject to the disease in poor and wet soils and

in rainy seasons; and intense heat succeeding continued rains is said to favour its development, especially if these circumstances occur at the time when the flower is forming. It is now, however, asserted that moisture has little or nothing to do with its production. It should not be collected until some day after it has begun to form; as, according to M. Bonjean, if gathered on the first day of its formation, it does not possess

the poisonous properties which it exhibits when taken on the 15th day. Properties. Ergot is in solid, brittle yet somewhat flexible grains, from a third of an inch to an inch and a half long, from a half a line to three lines in thickness, cylindrical or obscurely triangular, tapering towards each end, obtuse at the extremities, usually curved like the spur of a cock, marked with one or two longitudinal furrows, often irregularly

cracked or fissured, of a violet-brown colour and often somewhat glaucous externally, yellowish-white, or violet white within, of an unpleasant smell when in mass, resembling that of putrid fish, and of a taste which is at first scarcely perceptible, but ultimately disagreeable and slightly acrid. Under the microscope, the surface appears more or less covered with sporidia which occasion its glaucous aspect; and the interior

structure is found to be composed of minute roundish cells, containing according to Duchatt, particles of oil. Ergot yields its virtues to water and alcohol. The aqueous infusion or decoction is claret-coloured, and has an acid reaction. It is precipitated by acetate and subacetate of lead, nitrate of silver, and tincture of galls, but affords with iodine no evidence of the presence of starch. Long boiling impairs the virtues.

of the medicine. It has been analyzed by Vauquelin, Winckler, a German chemist named Wiggers, Wittstein, and several others. The analysis by Dr. Lewin is the most recent and complete. That chemist obtained from 100 parts of a thick, viscid fluid, of a fine yellow colour, 2.75 of starch, 1.00 of albumen, [illegible] of inulin, [illegible] of gum, 1.25 of uncrystallizable sugar, 2.75 of a brown resin;

3.50 of fungin; 13.50 of veget-
animal matter; 0.75 of
osmazome; 0.50 of a fatty
acid; 24.50 of lignin; 0.50
of colouring principles;
an odorous principle not
isolated; 2.25 of fungate
of potassa 0.50 of chloride
of sodium; 0.50 of sulphate
of lime and magnesia;
1.25 of subphosphate of
lime; 0.25 of oxide of iron;
0.15 of silica; 2.50 of water;
with 2.35 loss. Wiggers
obtained a peculiar prin-
-ciple which he denomina-
-ted ergotine under the

impression that it was the active ingredient. It was reddish-brown, of a peculiar nauseous odour and a bitter slightly acrid taste, soluble in alcohol, but insoluble in water or ether. It was obtained by digesting ergot in ether and afterwards in alcohol, evaporating the alcoholic solution, and treating the extract thus obtained with water, which left the ergotine undissolved. It was given with fatal effects to a hen, but much smaller

observations is necessary to establish its claim to be considered as the active principle. Dr. Christison, though following the process of Wiggers, was unable to obtain ergotin, and Dr. Wright was equally unsuccessful. The latter chemist, after careful investigation, came to the conclusion that the activity of the medicine resided in a fixed oil, which was accordingly introduced into practice as a substitute for ergot.

The oil of ergot when obtained from grains recently collected, is, according to Dr. Wright, often quite free from colour; but, as usually prepared is reddish-brown. It has a disagreeable, somewhat acrid taste is lighter than water, and is soluble in alcohol and alkaline solutions. It is prepared by forming an ethereal tincture of ergot by the process of displacement, and evaporating the ether with a gentle heat.

The conclusions of Dr. Wright in relation to the action of this oil upon the system have been confirmed by the experiments and observations of others; and there can scarcely be a doubt that its effects are identical with those of ergot. It may, however, be said rather to contain the active principle of ergot, than itself to constitute that principle, for the oil obtained by simple expression produces on

animals none of the effects which constantly result from that obtained by means of Ether. The opin-ion of M Bonjean that there are two active principles in ergot, the oil which is poisonous, and another resident in the watery extract, and possessing anti-hemorrha-gic properties without being in the least degree poi-sonous, requires confirma-tion. Under the name of Ergotin Bonjean's purified extract is

sometimes used in doses of from 5 to 10 grains. It is made by exhausting ergot with water evaporating to the consistency of syrup, precipitating the albumen gum and &c, by a large excess of alcohol and decanting the clear liquid and evaporating to the consistency of a soft extract; Ergot when perfectly dry and kept in well-stopped bottles, will retain its virtues for a considerable time; but exposed to air and —

moisture it speedily undergoes chemical changes and deteriorate. It is moreover apt to be attacked by a minute worm, which consumes the interior of the grain, leaving merely the exterior shell and an excrementitious powder. This insect is sometimes found in ergot before the removal from the plant. In the state of powder, the medicine still more readily deteriorates. It is best, as a general rule, to renew it every year or two.

It should be gathered from the age while standing in the field, and not after thrashing. Medical Professors and Mr. Given in small doses, ergot produces in the system of the male, no obvious effects; but, in the female, exhibits a strong tendency to the uterus, upon the contractile property of which it operates with great energy. It is perhaps the only medicine which specifically promotes contraction in that organ. In quantity of half a dracm

it often occasions nausea or vomiting, and in still larger doses produces a sense of weight and pain in the head, giddiness, dilatation of the pupil, delirium, and even stupor, proving that it possesses narcotic properties. It is said also to excite febrile symptoms; but our own observation coincides with that of authors who ascribe to it the power of reducing the pulse. We have seen the effect produced by it in a remarkable degree even without

nausea. Dr. Hardy of the Dublin Lying-in Hospital, found it to diminish the pulsations of the foetal heart. Its long-continued and copious use is highly dangerous, even when no immediate effects are perceptible. Fatal and devastating epidemics in different parts of the continent often, particularly in certain provinces of France, have long been ascribed to the use of bread made from rye contaminated with this degenerated grain

Dry gangrene, typhus fever, and disorder of the nervous system attended with convulsions, are the forms of disease which have been observed to follow the use of this unwholesome food. It is true that ergot has been denied to be the cause; but accurate investigations made by competent men upon the spot where the epidemics have prevailed, together with the results of experiments made upon inferior animals, leave no room for reasonable doubt upon the

subject. Very large quantities are required for immediate poisonous effect. From two to eight drachms have been given at one dose to a man without any very serious results, and three ounces, according to Dr. Wright, were required to kill a small dog. Death from a single dose, in inferior animals is preceded by symptoms indicating irritation of the stomach and bowel, great muscular prostration, loss of sensation and sometimes slight spasms.

A case of acute poisoning from ergot is recorded by Dr. Pratschke, in which uneasiness in the head, oppression of stomach, diarrhœa, urgent thirst, burning pain in the feet, tetanic spasms, violent convulsions, and death ensued upon eating fruit of ergotized grain. Ergot is now recommended by all accoucheurs for arousing or accelerating the uterine contractions during labor, and for preventing or subduing inertia of the womb and the hemorrhage which so

of the accompanying it, after
delivery. This action is prompt,
and is recognized by the
following signs: the entire
constitution is affected, the
heart and circulation, the
nervous system, the digestive
apparatus, and the secretions
are found and excreta if
they are of normal, slow
or feeble and suppressed
if life is suspended. In an
hour or two and a half
after the exhibition of the
agent, its action is over
and we observe
so that if there is any

necessity, it must be again renewed, or recourse be had to artificial means for terminating the labor. The permanent character of the contractions produced by ergot makes them very dangerous to the child when they are long continued. The violent retraction of the muscular fibre then renders the circulation difficult and sometimes even impossible, in those vessels which are distributed between the various layers, and we may readily understand that

the foeto-placental function must be totally obstructed. The effect, it can be prudently administered only when a prompt termination of the labor can be predicted. This remedy is only to be given during parturition, when the pelvis is well formed, the infant presenting at its cephalic or pelvic extremity, and of course when the position is well ascertained; where no serious obstacle exists at the uterine orifice in the vagina, or at the external parts.

Its administration ought to be avoided as much as possible in primiparas, and, if it should become necessary in them, the perineum must be supported with the greatest care, lest it be exposed to a considerable rupture should the delivery prove rapid; in very irritable women, who may have had convulsions either during gestation, or in their previous labors, because these sort often produce a state of nervous excitement in such persons.

In plethoric patients, suffering from congestion about the head which is characterized by flushing and turgescence of the face, by injection of the eyes, headache, and lastly in all those women, where the womb, from being endowed with an acute degree of sensibility, is in a state of irritation, and is habitually the seat of pains or who, in a former labor, might have been affected with an inflamation of this

organ. Ergot has also been employed successfully against the profuse hemorrhages that follow abortion, which are caused by the retention or total separation of the placenta; as also for the flooding that takes place after the expulsion of the foetus whether before during, or subsequent to the delivery of the after-birth. The question arises can ergot develop contractions when they have not yet existed? According to Prof. Dubois

it can, but it is not based on a sufficient number of facts to warrant its general adoption. Again, it has not been observed that abortions are of more frequent occurrence in those countries where the bread of the inhabitants contains a certain quantity of ergot; but habit perhaps might explain its want of action here. This medicine is employed under divers forms; and the powder, the infusion, the decoction, the aqueous extract or alcoholic extract,

ethereal tincture, or the syrup, may be used, almost indifferently; although in this country scarcely any other preparation than the powder and fluid extract. It is customary to administer two or three doses of the powder, consisting of eight or ten grains each diffused at the time it is given, in a little mucilaged water, or some aromatic infusion, to be repeated every ten minutes until contraction is manifest. When the patient seems disposed to vomit

it is better to give it by injection, and the dose might then be increased a little. And in conclusion I think it would be well for Country Physicians, always to carry a few grains with them, so as to have it convenient in case of necessity.

John G Womble
of
Maryland

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of [illegible] 1867-68-69.

Clinical Report.

By

J. E. Mussey.

Case 1st. Pneumonia - On July 1st 1871, I was [illegible] called [illegible] 8 y.o. A diagnosis was entered upon immediately, the results of which clearly revealed to me the existence of Pneumonia involving the lower lobe of left Lung. On inquiring into the history of the patient, I discovered, that, the [illegible] [illegible] of Rubeola. At the time of my visit, which was [illegible] the febrile action was not so intense, as

[illegible] the pulse [illegible] the [illegible]
[illegible] beats per minute, and respiration
increased in proportion. There exist-
ed a slight pain in the head, with
[illegible] pain in the region
of the left nipple, [illegible]
accompanied by [illegible] expiration
and complete [illegible] [illegible]
[illegible] with general thirst and pro-
stration, [illegible] [illegible]
[illegible] the theory [illegible]
[illegible] upon [illegible]
[illegible] the [illegible] upon [illegible]
[illegible], the [illegible] [illegible]
[illegible] to exist, together with
[illegible] respiration [illegible]
[illegible] rate. The foregoing [illegible]

[illegible] modification [illegible]
[illegible] already set in. As to the treat-
[illegible] mild laxative, consisting of Calomel
[illegible] gr. ij, at the same time ordered
[illegible] temperature
[illegible] hours, with a Mustard Poultice
[illegible] the [illegible]
[illegible] placing the patient upon a nu-
[illegible] calling the following
[illegible] at 11 P.M. the symptoms
[illegible] — The febrile action
[illegible], the pulse at 120 per min-

[illegible] the [illegible] in [illegible]
[illegible] of [illegible]. The physical signs in
[illegible] showed some advance-
ment of the inflammation to the
upper lobe. [illegible] treat-
ment to be continued, leaving a
[illegible] Powder to be taken at night
[illegible] ing next morning July 2nd,
the fever [illegible] [illegible] of
pulse at 120 per minute, [illegible] respi-
ration still hurried. Physical exam-
ination showed entire solidification
of left lung, with a tympanitic
resonance. [illegible]
[illegible] ing, the [illegible]
[illegible] than in the morning, the pulse
[illegible] and fuller, and hurried

[illegible] The same plan of treat[illegible] continued, in conjunction with small doses of Quinine, [illegible] together with [illegible] consisting of a tea-spoonful of [illegible] every [illegible]. On calling next morning, [illegible] 3rd, the symptoms were [illegible] in the previous morning, with fre[illegible] and a feeble pulse. The stimulant [illegible] stimulation. On calling the evening of the same day the fever was not so high as in the morning previous, the pulse increased a little in strength and respiration [illegible] The

[illegible] upon percussion and Bronchial respiration [illegible] [illegible] there was a marked increase of appetite, and with this favorable sign, a [illegible] nutritious substances was directed [illegible] [illegible] of the case denoted some improvement. The stimulant plan was continued, in conjunction with perspiration and nutritious diet, for a few days, [illegible] [illegible], there was marked convalescence, after which, the patient was put upon [illegible] [illegible] [illegible] the case was dismissed as one of complete restoration to health.

[illegible] Periostitis — Mrs E — of Ry-
[illegible] applied to me for treatment in the
[illegible] of 1870. The symptoms of the
[illegible] were as follows, — There was a
[illegible], circumscribed swelling, of a puffy
[illegible] — a node — not distinct-
[illegible] circumscribed, situated upon the
[illegible] surface of the [illegible]
[illegible] — the [illegible], [illegible]
[illegible] much pain in the part especially at night, with tenderness upon pressure. On inquiring into the [illegible] of the case [illegible]
[illegible] established — viz, that it
[illegible] a Periostitis of a specific nature
[illegible] and by the inquiry in-

[illegible] the only possible cure, that is to [illegible]
[illegible] chronic character. Treatment
[illegible] painted the parts over
[illegible] with Tinct Iodine, at the same
[illegible] placed the patient upon a
[illegible] of Iodide Potassium, in
[illegible] grain doses gradually in-
[illegible] to fifteen grs thrice daily,
[illegible] the system, which [illegible]
[illegible] for two or three
months at the end of which time
[illegible] improvement, [illegible]
[illegible] continued regularly [illegible]
which my plan had been pursued
[illegible] accrued from it.

[illegible] ce determined to cut down
[illegible] of [illegible]
[illegible] to the bone, and having so
determined, I called in the aid and
advice of my [illegible] Preceptor, Dr. L.
i Ballou, [illegible]
[illegible], and [illegible]
performed the operation, in quite
a short time, with all ease. After
which, as a mere experiment,
precisely the same plan of treat-
ment was continued, and in
nine weeks, from the performa-
nce of the operation, the patient
was discharged, with quite a
[illegible] limb capable of performing its [illegible] duties.

[illegible] of [illegible]
[illegible] the summer of 1870, while
spending a few days at my home
in [illegible], I was hastily summoned
to attend a case which, upon my
arrival, was found to be a complete
rupture of the lower end of the Ra-
dius. There was some inflammation
about the wrist, with no very con-
siderable displacement. [illegible]
[illegible] reduction, and complete loss
of movement of the parts existed.
[illegible] a [illegible] on the posterior
surface of the [illegible], [illegible]
compresses to both palmar and
dorsal surfaces, [illegible] the

[illegible] with a sufficiently tight bandage. I saw the case a few days after [illegible], which seemed to be doing perfectly well, and did not see my patient again for five weeks, when my return to my station [illegible] at the end of which time, I removed the bandage and applied another to my arm [illegible] the [illegible] term and hand without restraint performed its usual duties.

[illegible] I was called to see an infant [illegible] months of age, and after a more [illegible] examination of the case, it proved

[illegible] of thrush. There were pouts-
[illegible] lies of a curd-like appearance
[illegible] upon the mucous mem-
[illegible] of the mouth, proceeding a
[illegible] the epithelium. The child
[illegible] was in an irritable and
[illegible] dition, the temperature
[illegible] was increased, with red-
[illegible] and hot [illegible]

[illegible] at times. The cause
[illegible] appeared to me was, the con-
[illegible] of improper, and indi-
[illegible] food. Treatment — Vomiting
[illegible] ordered, with a view of re-
[illegible] the cause. Beef tea and Mu-
[illegible] drinks were given as inter-
[illegible] edies, with a solution

[illegible]

[illegible] —, as a local remedy. There [illegible] marked improvement in [illegible] the treatment, and [illegible] the disease had vanished.

[illegible] 8th, of dysentery — On July 27th 1870, [illegible] was called to a case, which proved to be a child, 20 months [illegible], suffering with dysentery. [illegible] of a glairy mucus [illegible] of boulea starch, mingled with blood, the [illegible] and tenesmus [illegible] and [illegible]

more [illegible] [illegible],
[illegible] — I at once put the case up-
on the following prescription, "℞. Ext-
[illegible] gss 1/8; Pulv Opii grs 1/24; Sach-
[illegible] gss v. M - S - Such a powder to
be given every three hours, until eight
[illegible] taken". Also with lube
[illegible] drinks & Mucilaginous
broths, in a well ventilated room.
Morning the next day, to my
surprise, I found my little patient
up and doing finely, though some
[illegible] still to be traced in the
[illegible] the same treatment
[illegible] continued and on calling
next morning, I found [illegible]
more [illegible]

[illegible]le, instead of which, the stools
[illegible] of a greenish tint, and of
[illegible] frequency. I then put the
[illegible] upon a course of Hyo-bum-
[illegible]ta gr. ii, thrice daily, and on
[illegible] next morning. I found
the condition of the feces much
improved, almost normal.
I continued my calls for a few
[illegible] longer and at last dismissed
the case with good results.
[illegible] Simple Fever.—On July
[illegible]th 1871, my professional services
[illegible] summoned to a case,
which was found to be a girl 14
years of age. The symptoms found
were as follows, Pain [illegible]

general debility, [illegible] of [illegible]
insomnia, pain in the frontal
portion of the head and constipa-
tion of the bowels. The pulse at 110
beats per minute, and the surface
[illegible]. The [illegible]
and high colored, and the intelli-
gence [illegible]. I
at once ordered a saline laxative to be
given, which consisted of a table-
spoonful Epsom Salts with cooling
applications to the forehead, at the
same time placing the patient
upon the following prescription.
℞ Spiritus Menthæ grs xii, Pulv. Opii grs ii
Nitras Potassi grs xxviii, M. Et Pulv
dovi. S. One every three hours.

[illegible] next morning [illegible]
[illegible] found the fever [illegible]
[illegible] abated, pain in the head
[illegible] subsided to some extent,
the bowels free and easy, and a
slight return of appetite. I [illegible]
[illegible] a continuance of the Ni-
[illegible] Powders &c, in combination
with small doses of Decoction [illegible]
frequently repeated, and a nutritious
diet. On calling [illegible] days af-
terwards, I found my patient up
and doing finely, at which time the
[illegible] was [illegible]
case was placed upon a nutri-
tious diet, with free open exercise
in the fresh air of the country.

Thesis on
Anaesthesia

1871

G M Wallace

Anaesthesia.

The literal meaning of anaesthesia is want of sensibility, but taken in its usual surgical significance, it also implies a suspension of motive power and volition. There are two kinds of anaesthesia: One general, produced by the inhalation of gases, or the vapors of volatile liquids; the other local, induced by the application of cold, or sprays to a circumscribed portion of the body. Anaesthetics have been in use from an early period. The Egyptians and Romans employed the fumes of opium, hemp, and hyoseyamus to lessen, or destroy sensibility to pain, in surgical operations, and from that time to this, various drugs have been used for the same purpose.

Those which have, at different periods

in modern times, gained most celebrity, are nitrous oxide gas, ether, and chloroform. Nitrous oxide gas is prepared by heating the nitrate of ammonia in a retort, and is a colorless, transparent, and almost inodorous gas, of a distinctly sweet taste. It is one of the safest, speediest, and most reliable, anaesthetizing agents we have, as it produces complete anaesthesia, and there is no one who is insusceptible to its effects. One and a half minutes are sufficient to get the patient under its influence, but the evanescent nature of the effect produced by it, which only last four or five minutes, is in many instances, the principal objection to its use. No bad sequelae are ever known to follow the administration of this gas, and it is admi-

rably adapted to minor operations.

Administration. It should always be pure, and, with this view, it should be kept under water in a receiver to prevent oxidation, and should not be used when more than five days old. The best apparatus, for its administration, is an indian-rubber bag, with a tube extending from it, to the end of which there is a gum plug attached, to be introduced into the mouth. It is very essential for the full effect of this gas, that no air should be mixed with it; so when the plug is introduced into the mouth, the nose should be held, and the lips closely approximated. When the patient inhales the gas, he first becomes pale, then blue, and finally there is a slight twitching of

the muscles, which is an indication that the pa-
is sufficiently anaesthetized, and that the operation
should be begun, that it may be completed before sen-
sibility is restored. The different preparations
of ether have been at times much employed,
but their use is now confined to certain local-
ities, especially Massachusetts, where its
anaesthetic properties were first discovered.
Sulphuric ether, the preparation most
vaunted, has now been almost entirely
superseded by chloroform. The latter
is much superior to it, in being non-inflammable,
less irritating to the air passages, and
producing anaesthesia quicker, in smal-
ler quantity, and with much more cer-
tainty, though it is much more depressing
to the system. When the inhalation of chlo-

reform has to be repealed, owing to the length of the operation, and proves too depressing to the system, ether may be very advantageously substituted for it.

Chloroform. The narcotizing virtues of chloroform were first discovered in 1847, by Dr. Simpson of Edinburg, who introduced it into surgical practice as an anaesthetic agent. From the time of its introduction, it became extensively used by surgeons and obstetricians, in England, France, and America, and stands now on the highest pinnacle of remedial celebrity, "having embalmed its discoverer in an elixir of immortal fame".

Chloroform is a terchloride of a hypothetical base called formyle, and is prepared by distilling alcohol with a solution of the chloride of lime. It is a heavy, colorless liquid, resembling water, of a fragrant odor and sweet, agreeable taste, very volatile and almost noncombustible. The effect produced by it continues a considerable time, compared to that produced by other medicines of the same class, and may be continued as long as desirable by repeating the application, whenever reflex action returns. Accidents sometimes happen in the use of chloroform, but so infrequently, that they are no argument against its use, as the advantages derivable from its employment more than

counterbalance the danger the patient may be exposed to, while under its influence. There is difference of opinion among surgeons, as to the propriety of using it, when certain organic diseases are known to exist, such as those of the heart, lungs, and brain, but the objection to its use, under these circumstances, is without foundation; for if these diseases existed shock would be much more apt to produce death, by its action on impaired organs, than if they were in a healthy state, and it is known that chloroform has a tendency to diminish shock, and it there by increases the patients chances for life. This has been found experimentally to be true, and

furthermore, it is now given as a remedy in* these very diseases, which were supposed to contraindicate its use. It may be laid down as a broad rule "that there is no known condition of the system, which contraindicates the use of chloroform".

When the vapor of chloroform is inhaled, it is absorbed into the blood, conveyed to the nervous centres and rest of the body, upon which it soon produces very marked effects. The intellectual faculties are first suspended, next general sensibility and voluntary motion, and finally all reflex action and involuntary motion, except that of the circulation and respiration; i.e. first the hemispheres are affected, then

*some of

the cerebellum and upper part of the medulla oblongata, and finally the spinal cord and remainder of the medulla, *excepting the respiratory & circulatory centres. When reflex action has been entirely suspended, which may be determined by the patient not winking his eye when the ball is touched, the operation should be commenced, and the inhalation not pushed further, for fear of destroying the respiratory centres in the medulla, and death immediately ensuing.

Administration. Adulterated chloroform should never be administered. When pure, if dropped in water, it falls to the bottom in a round globule like

* with the exception of - ∴

mercury, and rest there in an apparently crystalline form, but, if diluted with alcohol, presents a dirty color. In the latter instance it will also coagulate the white of an egg. Chloroform, when inhaled, should always be saturated with air, so that the mixture will only contain about five per centum of the anaesthetic, as a more concentrated one would be irritating to the air passages, and dangerous to life. An atmosphere containing two per centum will anaesthetize, and one containing fifteen per centum is very irritating to the lungs.

The simplest apparatus for administering chloroform is the best, and that is a

stiff towel, conically folded, with a wide apex. A wire frame, covered with cotton cloth, is also a very convenient arrangement. Too much should not be poured on the apparatus, as it is somewhat caustic, and might excoriate the tissues, if it comes in contact with them by dripping off. It should be carried gradually to the nostrils of the patient, as it will then be more quietly taken, two fingers being inserted into the apex of the cone and abducted, so as to ensure the free passage of air. The administration may be divided into three stages: 1 that of excitement, 2 that of tolerance, 3 that of paralysis. The period of excitement is very variable in duration, and the

individual generally discovers his propensities whatever they may be, and is often subject to hallucinations. If the vapor irritates the throat there may be coughing, and such contraction of the muscles connected with the tongue as to retract it, and close the glottis, rendering death imminent from apnoea. Hence this organ should be watched, and immediately drawn out if this occurs, even by transfixion with the tenaculum if it is required. During the period of tolerance the patient is quiet. Stertorous breathing has ceased, if it were present in the first stage, and the patient permits the chloroform to be carried nearer his nostrils, there

being no longer any irritation of the air passages, local anaesthesia having been produced by the contact of the vapor with their mucous membrane. When the stage of paralysis is reached, general motor and sensitive paralysis have been successively induced, but the respiratory and circulatory systems still maintain their action, and there appears to be a long interval, between the suspension of sensibility and the cessation of their function, by the further increase of the anaesthesia. But when you have reached the third stage the patient is three fourths dead, and the inhalation should be discontinued, as there is danger of causing death at any moment by its continuance.

Chloroform should not be administered on a full stomach, or when the apparel is tight, and the patient should always be in the recumbent position. It may be preceded an hour, or half hour, by a draught of whiskey and morphia, which lessons the depressing effect of the drug, and renders the patient more susceptible to its narcotic influence. This is particularly advisable in nervous patients. The respiration should first be watched, then the circulation, and lastly the face. When death takes place, there is generally first a cessation of respiration, the heart being last affected, but the latter may be primarily affected by this powerful sedative. If stertorous breathing and pallor occur during the inhalation, it should

be withdrawn, and fresh air supplied, which will dilute the vapor in the lungs. But if the patient stops breathing suddenly, his face becomes deadly pale or livid, and his pulse extremely weak or imperceptible, the withdrawal of the vapor and admission of fresh air will not be sufficient. Artificial respiration will have to be resorted to, either by the mouth to mouth mode, which is always at hand, breathing air in and out his lungs at the usual respiratory intervals, or by one of the other various methods. The employment of electricity, and catheterization of the glottis, or trachea after Tracheotomy, are not always practicable, but these and the mouth to mouth respiration, are considered by Dr. Richardson the best

methods of employing artificial respiration, of course excepting his double muzzled bellows. He has found by experiments on the lower animals that the ruder modes, as Sylvester's, Marshall Hall's, and Howard's, are rather injurious than otherwise.

The limits of this work, only admit of a very cursory notice of local anaesthesia, which may be found in its commencement.

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Fredericksburg, Va.

AN

Inaugural Dissertation

ON

Opium

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Robert H. C. Stults.

Of

Baltimore, Maryland.

Session of 1870–1871

This plant is arranged by Botanists as belonging to the Natural Order Papaveraceae, Dec. Syst. Regnaline Monogynia.

This highly esteemed and most usefull article of the Pharmacopeia, is obtained from incisions made in the unripe capsules of the Papaver Somniferum.

Not that this is the only species from which it is obtained, but that every species of the Poppy is capable of furnishing more or less of the drug. Yet both the French and British Pharmacentists agree with the Americans in recognizing it only from the Papaver Somniferum

There are two varieties of this species cultivated for the juice which they contain, differing from each other both in the color of their seeds and leaves. The white poppy having solitary flower stalks surmounted by white flowers and having white seeds, the other viz: the Black poppy having numerous flower stalks and generally red or violet colored flowers and having black seeds.

All parts of the plant contain a certain proportion of the narcotic juice, with the exception of the seeds; which are found to be wholly destitute of any narcotic

or soporific principles, and is
even used as a drinking vessel of
fat among the Orientals.
The mode of obtaining opium
is about the same in all
countries from whence it is
derived, that is by making
incisions into the half ripe
capsules and after the elapse
of from 12. to 36 hours the concrete
juice is scraped off by means of
a blunt instrument; it is
then kneaded in warm water
and moistened till it is of a proper
consistence, the mass is then
enveloped in the poppy leaves
and is ready for exportation.

Commercial Ochre.

The principal countries from which we obtain this clay, are India, Persia, Egypt and Asiatic Turkey; but of all these varieties the kind which is most extensively used and which in quantity by far exceeds any other brought into our country is the Turkey Umber. Of this there is again two varieties viz Smyrna and Constantinople Umber.

Some authors argue that they are the one and same clay only brought from different ports while others say they are not the same but differing greatly in constituents and resources.

The Smyrna opium as we receive it, comes in irregular rounded or flat pieces, varying from 1/2 to 1 1/2 lbs in weight being very hard on the external surface but soft in the interior; they are enveloped by a species of Rumex which prevents them from adhering together.

This variety has one peculiar character, which appears when the opium is cut and minutely torn; they are easily detected by the microscope, but are nevertheless easily seen when pressure is made by the fingers.

The amount of Morphia

contained in the opium varies according to the [illegible] of the day; from the best [illegible] from 10 to [illegible] of the [illegible] contained while from the inferior [illegible] only about [illegible] of morphia is procured.

Constantinople Opium.

This variety comes in pieces from ½ to 2 lbs in weight and very much like the Smyrna opium; it is in irregular [illegible] cakes and wrapped in the leaves of the [illegible]; but it must be [illegible] of tears which [illegible] of the variety of Smyrna opium.

The average is about the same

in quality as the Sayonne [illegible]
though not of as fine [illegible] 15 per cent
was obtained.

There is also an inferior [illegible]
of Constantia [illegible] fine [illegible]
according to Guibert contains
only 6 or 7 per cent of the [illegible]
some authors say that the only
difference between the Sayonne
and Constantia wine [illegible] that
the latter is the selection or choice
made from the two and sent to the
Capitol the use of the [illegible] and
is only a better variety of the same
species and that the Sauvance
is the refuse left after the choice
has been made and is exported under

the name of "Imperial Opium" Properties. Good opium should have a peculiar strong narcotic odor and a bitter acrid taste and when chewed excites much irritation in the mouth; to those unaccustomed to its use will produce a blister; it should have a fine chestnut color and have an uninterrupted stain when drawn across white paper, the interior is consistent soft and tenacious but upon exposure to the atmosphere becomes hard and brittle breaking with a clearly notched and shining fracture.

When it is pulverized it becomes

a yellow powder which upon elevation of temperature becomes agglutinated together.

Upon the application of a lighted taper it readily inflames.

It is soluble in water and alcohol and dilute acids but is insoluble in Ether; the combining proportion varies in different specimens but generally is in the proportion of 12 parts out of 16.

Chemical Constituents

There has been much attention paid to the chemical constitution of Opium of which there is a great variety, the most important of these

is the alkaloid Morphia.

It exists in opium chiefly in combination with meconic acid as a meconate of Morphia; it is this alkaloid that opium depends upon for its narcotic properties.

The other ingredients found in opium are Narcotina Codeia Narceia Para-Morphia Papaverine opianic cryptopia meconin thebo-lactic acid porphyroxin gum and extractive oil, of these constituents none of them equals morphia in value.

Narcotina This substance exists in opium chiefly at least in the free state, and being insoluble in water is left behind when the drug is

manufactured in that province in considerable quantity.

It occurs in needle like crystals weighing large three fifths of pure acid; it is insoluble in cold water but is soluble in 400 parts of boiling water; it is also soluble in 100 parts of cold alcohol and 24 of boiling; but it is deposited upon cooling; it is very soluble in Ether the fixed and volatile oils and dilute mineral acids dissolve it.

It has no alkaline reaction on vegetable colors and does not prevent the acids from reddening litmus paper; it was thought at one time to possess

some of the narcotic virtues of opium, but it is now known to be inert in this respect.

Its salts have been used in India as febrifuge tonics in the treatment of intermittent fevers.

Codeia. This element exists in opium combined with meconic acid like morphia, it is extracted in the process for obtaining morphia it may be separated from the latter alkaloid by an alkaline solution, which dissolves the morphia and leaves the codeia.

It may be purified by treating the crystals with hot ether which dissolves it and leaves it

in colorless white crystals by evaporation; it has an alkaline reaction and combines with acids to form salts.

Codeia has been found to possess some narcotic virtues; its action is directed specially upon the Sympathetic nerve, and it has been used in the treatment of Gastralgia and Dyspepsia in the dose of ½ grain or more; it is rather to be used in a preparation to use however.

Narceia. This substance is obtained from the liquor left behind after the salts of Morphia have been extracted; it has not been

ascertained to have any particular influence upon the system; but in Europe, it is said to possess valuable medicinal qualities, but it has not been confirmed on this country.

Tests for Opium

It is very important sometimes to detect the presence or absence of opium in any suspected mixture.

No meconic acid has been found only in the products of the poppy and likewise morphia, if either of them is detected in any substance there is strong evidence of the presence of opium; therefore the list should be applied with

respect to these two principles.

If the tincture of the chloride of Iron be added, it will strike a red color with meconic acid.

Nitric acid will turn morphia red; but the sesquichloride of Iron will color it dark blue; Iodic acid will color it reddish brown and if starch be added will form a blue compound; Ammonia will precipitate it from solution and tannic acid will form with it an insoluble compound.

Incompatibles. Opium is incompatible with alkalies on account of it precipitating morphia from its soluble combination: so

also an astringent infusion, containing tanic acid which will form an insoluble compound.

Physiological Effects.

Opium is a powerful narcotic; its effects are modified by the quantity taken, and the peculiarities of the patient to whom it is administered.

Opium when taken by a strong healthy person in a moderate dose it increases the force the fulness and the frequency of the pulse; it raises the temperature of the skin, it invigorates the muscular system, animates the spirits and agreeably exhilarates the intellectual faculties.

While its effects are extending to all parts of the system, it is directed with singular force to the Brain; the functions of which it excites to such a degree, as to cause intoxication and sometimes delirium.

This stage is of short duration soon the patient shows a disposition to sleep; the pulse begins to get slower susceptibility to impressions from without is diminished, the mind also becomes confused, till at last the patient sinks into a deep and profound slumber.

This stage having lasted some 8 or 10 hours, goes off and is succeeded generally by more or less

nausea and vomiting, and sometimes symptoms of irregular nervous action; which soon pass off, unless the dose be repeated often and the patient worn out by over excitement.

There seems to be no injurious effects to result from the taking of the drug, such is the action of opium in moderate doses; but there are other very important effects produced, all the secretions except that of the skin is diminished, the peristaltic action of the intestines is lessened, pain and muscular contraction is allayed if not entirely relieved.

In such doses that are not sufficient to produce the full

soporific effect, the stimulating influence lasts a great while longer; and the calming effect on excitement for some hours after, so they are rendered so light that when the patient wakes up he will hardly admit that he has been asleep.

When large doses are taken, the period of recovement is much shorter; and the soporific and anodyne effects are much more intense and of longer duration, the succeeding effects also become more severe and alarming.

From quantities sufficient to destroy life, after a short period of excitement the pulse is reduced

in frequency but not in force; muscular strength is diminished, and a feeling of languor and drowsiness comes on which finally terminates in a deep apoplectic sleep; Stertorous breathing a dusky hue of the countenance and total insensibility to any impressions.

The patient can only be aroused from this stage by some violent agitation or irritating applications; a confused state of intellect and an irresistible desire to sink back into comatose sleep.

These are symptoms which attend the operation of the poison for the first few hours.

If called to a person suffering from a fatal dose of opium, from 6 to 8 hours after it has been taken; he will be found with a cold clammy skin, cold extremities, pale countenance and a thredlike pulse; slow gasping breathing and death-like insensibility; unless relief is afforded death very soon follows.

No appearances are revealed by dissection of those who have died from the immediate effects of opium, which can be considered of sufficient evidence of its operation.

The redness that is seen in the mucous membrane of the stomach, is not constantly present

and is ascribed as much to the irritating effects of some tincture exhaled into the spirituous vehicle of the opiate as to the action of the poison itself.

On some persons opium produces effects differing from the ordinary results of its operation; in small quantities it gives rise to sickness and vomiting, in other cases it produces restlessness and headache like delirium.

In large doses it has been known to cause obstinate wakefulness; and in some, its effects are such as to render it totally inconvenient.

Its operation may be modified, by changing the state of combination in which the active principal naturally exists; dissolved in vinegar or lemon juice, it acts more pleasantly and effectually, than when given in substance or tincture.

Another effect of opium is a disagreeable itching or sense of pricking of the skin, attended with a miliary eruption.

The general operation of opium may be obtained, by injecting it into the rectum or applying it to a denuded surface; when thus applied it appears to

produce less general excitement than when given by the mouth.

The local effects of opium, are similar to those which follow its general operation; an increased action of a part, then diminution of sensibility and contractility; the latter effect is more speedy more intense, and of longer duration; the larger the quantity applied.

In all parts of the world opium is used by many, for its exhilarating effects; this is more so the case among the Mahomedans and Hindoos, who find in this drug a pleasing substitute for alcoholic drinks; which are interdicted by their religion.

In India, Persia, and Turkey; it is consumed in vast quantities; and many natives of the East, smoke it. But this is not the place to speak of the fearful effects which such a practice would produce, both upon the intellectual and bodily faculties.

Medicinal Uses

Of all the articles in the Materia Medica; Opium enjoys the widest range of therapeutic application.

From its properties of relieving pain and producing sleep; it is useful in almost all diseases, and is only contraindicated when there is a tendency to apoplexy or Coma; or where peculiar-

ities exist which forbid its use.

As an anodyne, we have no substitute for opium; also as a hypnotic it is equally invaluable.

In the treatment of continued fevers, there is at times when opium will do good; it may be employed to allay pain and quiet fever; also in moderate delirium and subsultus tendinum.

In typhoid fever when there is symptoms of perforation of the bowel; opium may be employed to prevent the escape of fecal matter into the cavity of the abdomen; it is employed in the treatment of diseases of an inflammatory character; it is valuable as a curative remedy as well as a palliative.

a state of general irritability of the system is very promptly relieved by a dose of opium.

The action of opium is remarkable for its influence in preventing excitation in the system, a part of this action may be ascribed to its power of contracting the capillaries.

When there is troublesome cough and loss of sleep much benefit may be derived from a dose of opium; in Pneumonia it has been employed with advantage in the form of Dovers powder, but if the patient is so weak as to impede expectoration it is best to withhold it. In the early stages of simple catarrh, dovers powder has been

found to afford the patient very great relief; in acute Pleurisy the employment of morphia hypodermically, is of very great value in relieving the pain; also in the treatment of advanced stages of Phthisis, where there is an urgency cough, remarkable relief may be obtained by applying a solution of morphia in Glycerine to the larynx and trachea.

In the treatment of acute Peritonitis its action is remarkable it should be given in quantities sufficient to relieve pain and the patient should be kept under its influence for two or three days; but narcotism is always to be avoided.

In acute dysentery it acts very promptly by allaying pain and spasmodic action of the lower portion of the bowels; in this disease the combination of opium and aperients are of extreme importance if there be much tenesmus associated with it. In cases of simple diarrhoea it is best not to give the opium when it kept up by irritating ingesta but administer a laxative to get rid of the offending cause; in the colliquated diarrhea of patients suffering from phthisis, opium is not so good if it can be stopped by any other means; but in old chronic cases of diarrhea it is very beneficial, it produces its effects by checking the

peristaltic action of the intestines.

In spasmodic affections opium is the only reliable remedy in relieving spasm and controlling irregular muscular movements, which depend upon unhealthy nervous action; hence its importance in relieving asthma by putting the patient under its influence.

In Tetanus it is very valuable especially in traumatic arising from a painfull wound; it acts by allaying pain and preventing reflex action; in idiopathic tetanus it is not so good, it is best given in the form of solution of morphia injected hypodermically.

In neuralgic affections it is of extreme importance 5 minims of

Magendie's solution may be injected under the skin in the back of the neck or in the temporal region.

Hypodermically, opium is more speedy in its action and more lasting in its effects; it does to have a special tendency to produce its effects on the stomach whether given by the mouth or hypodermically; but in a good many cases it is preferable, to get its constitutional effects more speedily, especially in various forms of colic.

In the treatment of delirium tremens of drunkards it is a question of doubt whether to employ it or not; but in such where it is admissible it may be given in the dose of a 1/4 grain of

morphia, repeated as often as necessary; but since the hydrate of Chloral has come into use it is by far the best remedy of the kind; it does not produce any of the disagreeable effects on the stomach that opium does.

In some of its liquid preparations, opium has been used as an addition to a collyrium in ophthalmia, and to injections in Gonorrhoea also to lotions and cataplasms: in various complaints, as Gout and Rheumatism

In cases of poisoning from opium the stomach is to be evacuated immediately by the pump or by emetics it is best however to use the direct emetics such as Sulphate of Zinc x to xxx grains

Sulphate of Cupri, powdered Alum; also mustard and water which is as good as any; you might introduce a feather into the mouth and irritate the fauces, this will very often produce vomiting. In the meantime cold water should be dashed upon the head and face and warm water as an enema. There is no chemical antidote that will decompose it or keep it from being absorbed; strong coffee may be used with very good effect. It has been found that Belladonna exerts a powerfull influence as a physiological antidote; it may be given by the stomach or a still better method is to inject a solution of Atropia

under the skin.

When all rational means have failed, the only course left to pursue is to produce artificial Respiration and the use of the galvanic Battery; the shock should be directed along the phrenic nerve.

Preparations of Opium

Pillulae Opii Take of powdered opium LX grains and soap XII grains divide the mass into sixty pills they are kept in the shops as hand ed opium Pills; preferred in cases of irritable stomach.

Pillulae, Saponis, Compositae. Take powdered opium LX grains and of

Soap a troy ounce, five grains of the mass contain one grain of opium
Confectio Opii. This is a preparation of opium with honey and spices. Take of opium two hundred and seventy five grains aromatic powder six troy ounces clarified honey fourteen troy ounces Dose XXX to LX grains
Extractum Opii This is made by evaporating the aqueous solution. Dose half grain
Trochisci Glycyrhizae, Et Opii. The are much used in Philadelphia under the name of Wistars cough lozenge. Take of opium half troy ounce, liquorice gum arabic and

sugar each ten troy ounces, and oil of anise fluid drachm; divide into Troches each weighing VI grains, each one contains about 1/10 of a grain of opium.

Emplastrum Opii. Made by mixing the extract of opium troy ounce with water III fluid ounces; add Burgundy pitch III troy ounces Lead plaster XII troy ounces previously melted together.

Pulvis Ipecacuanhae, Compositae This preparation is known by the name of Dovers powder. Made by rubbing up LX of opium and Ipecac each with troy ounce of Sulphate of Potash. This is a valuable anodyne

and diaphoretic; used in Diarrhea, Dysentery, Rheumatism, Bronchitis and Pneumonia.

Dose V to X grains.

Tinctura Opii. Prepared by macerating two troy ounces and a half of powdered Opium for three days in a pint of water; then add one of Alcohol macerate three more days then put into a percolator and add dilute alcohol until two pints is obtained. This preparation is the one most commonly employed, when it is kept any length of time the alcohol will evaporate and become stronger.

Dose XIII ♏ or XXV gtt. this preparation is mucked used as an Enema.

Tinctura Opii Camphorata
Prepared by macerating LX grains of opium in dilute alcohol two pints, with LX grains Benzoic acid oil of anise fluid drachm, clarified honey II troy ounces and Camphor forty grains
Dose for adult ½ fluid ounce for children V to XX drops.
Tinctura Opii Deodorata. This preparations contains the same amount of opium as laudanum; a liquid watery extract is first made, then washed with Ether. The Ether is then evaporated and residue dissolved in water enough alcohol is added to preserve it all the odorous particles are thus got rid of. This preparation is particularly

adapted to children.

Dose X ℳ to XXV drops.

Acetum Opii, or Black Drop.

prepared by macerating V troy ounces of powdered opium, with half a troy ounce and 156 grains of Saffron, VIII troy ounces of sugar, in a pint of dilute acetic acid; then percolate with the same menstrum till two pints is obtained. This is twice the strength of Laudanum and should be given in half the dose. Dose V ℳ to X ℳ

Vinum Opii or Vinum Laudanum. Prepared by macerating III troy ounces of opium in sherry wine one pint with cinnamon and cloves. Dose XIII ℳ or XXX drops.

Morphia.

Morphia when found pure is in colorless crystals, soluble in alcohol; it exists in opium in combination with meconic acid as a meconate of morphia. (It is obtained by macerating the drug in water; then alcohol is added and a solution of amonia to the watery solution the amonia seizes than precipitates the morphia and the alcohol seizes the coloring matter; the crystals that are formed are then boiled in alcohol and filtered through animal charcoal.

Medical Properties and Uses

The action of morphia is similar to that of opium. it seems to possess all the anodyne and soporific diaphoretic properties of opium; but it is not so stimulating to the circulatory system as is opium. Morphia is less apt to produce constipation nausea and headach than is opium; it is more acceptable to the stomache and may be retained when opium would not. Morphia is applicable to all cases where we wish to relieve pain quiet restlessness and promote sleep or allay nervous irritation; but it is not so good as opium for preventing morbid discharges and

as stimulants in low forms of fever.

Preparations of Morphia

Morphia Sulphas

Take of morphia in powder ½ ounce Distilled water half pint and a sufficient of dilute Sulphuric acid; Mix the morphia with the water and carefully drop in the acid till the morphia is saturated and dissolved; evaporate by a water bath and dry the crystals upon libulous paper.

All the other Officinal Salts are made by saturating the alkaloid with acetic Muriatic

acids; they are all freely soluble in water and produce nearly the same effects. The sulphate being the one most commonly employed in this country; 1/6 of a grain of morphia is equal to about 1 grain of opium.
Dose by the mouth 1/8 to 1/4 of a grain, Hypodermically 1/4 to 1/10 in persons who have never taken the drug it is best to begin with a small dose. The officinal solution contains 1 grain of morphia to 1 ounce of water. Another solution much used is Magendie's it contains 2 grains to the drachm of water used Hypodermically.

F. J. Jones

AN

Inaugural Dissertation

ON

Pseudo-Membranous-Laryngitis.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Joseph A. Jones.

of

Macon Georgia.

Session of 1870 & 1871

Pseudo Membranous Laryngitis.

This peculiar disease is a common and fatal one among children. The essential anatomical character of which is inflammation of the mucous membrane of the larynx. With a corpuscular or fibrinous exudation. It is confined almost to children between the ages of two to three years. Seldom ever occuring in adult life and never under the age of six months.

Causes.— Some children are more liable to this dis than others. And indeed we

are lead to believe in a hereditary predisposition. the common exciting causes is exposure to cold. children who live in a heated apartment and taken from that to a cold one or into the open air are especially liable to croup. the inhalation of irritating vapors or swallowing irritative or corrosive liquors.
This disease is most frequently primary, but occasionally secondary, and this form is not very unusual in the declining period of measles.

and is complicated occasionally with scarlet fever. the the Pseuds membranous Laryngitis common in diphtheria is meare a form of secondary croup.
This disease is more common in the winter months and in changeable weather than at any other season.

Pathalemical Changes.
The inflammation peculiar to this disease effects not only the mucus membrane. but in some cases it extend to the cellular

tissue. and causing infiltration or oedema and is liable to locate itself or effect any of the mucus tissue. as the eye. ear. ~~or~~ anus. or any abraded surface of the skin. the mucus membrane of itself undergoes similar changes or alteration to that in simple laryngitis or catarrhal croup. consisting of thickening and injection and desquamation of its epithelial cells. and an abundent production of muco pus. sometimes is formed only in patches and in other

cases it extends over the whole larynx. and in all except the mildest cases. the inflammation extends rather than the larynx. it is accompanied more or less with Pharyngitis and. inflammation of the mucus membrane lining the Trachia and. Bronchial tubes.

The distinguishing features of this disease is the exudation of fibrin and the formation of a Pseudo membrane upon the surface of the larynx. the inflamatory product. varies greatly in the amount.

in different cases. it may occur only in points or small patches and these are formed as a general Rule in the vacinity of the Vocal cords. in other cases it extends from the epiglottis into the bronchial tube in those children who are strongly and Robust. the membrane is commonly firmer than in those whoes System has been Reduced. if the case continues from six to ten day it began to soften from decomposition. the fibrils of which are attach

to the mucus membrane give way and is sometimes thrown off in favorable cases by the efforts of vomiting or coughing. The seperation of the membrane is aided greatly by the formation of muco pus which accumulate beneath it. in fatal cases or in the early stage of favorable cases where the membrane in any way become detach it will speadily be reproduce so then in a few hours the dyspnea returns. Pneumonia is not unfrequently complication

of this disease in extreme cases in which there is great obstruction to the entrance of air into the lungs. these organs are imperfectly infiltrated and in this state the blood is imperfectly oxygenated.

Symptoms:—
in some cases of Pseudo membranous Laryngitis the prodrome is Coryza and inflammation of the fauces. in other cases Laryngitis is present from the 1st but one of the earliest

Hoarseness is the cough which is characteristic and of great diagnostic value. The character being dry and hoarse not so sonorous and more whispering than in false croup. And this condition of the voice continues both day and night until the disease reaches its maximum. And towards its close of life the voice is lost and the child speaks in a whisper. The amount of exudation varies in different cases according to the extent

of inflammation. if the inflammation extends no lower than to the upper part of the trachea the sputum will be scant, thin, contains cons. in ordinary cases it is scanty. in fatal cases more abundant. and towards the close of the disease if it become scanty it is due not merely to the exhaustion of the patient, but also to the closure or obstruction in the larynx. a much larger quantity of the mucus and pus is expell by vomiting than by coughing.

some time a small portion of the membrane is thrown off with the mucus and pus. The Respiration is some what accelerated but not so much so as in Pneumonia or capillary Bronkitis; it become slower as the disease advances. the patient has at time dibelsing attacks of dyspnoea cause by a portion of the membrane becoming detached and in doubling upon itself. When this occurs the little patient is very restless throws itself from side to side

it was a wild look out
of his eyes features anxious
and he extends his arms
to his Mother or Nurse for
Relief

The frequency
of the pulse varies from
(110 to 120) one hundred and ten
to one hundred and twenty
per minute as the disease
advances it become more
frequent. and louder towards
the close of life on ascultation
over the larynx in True croup
you can hear as the air
passes the obstruction a
loud inspiratory as well as

the inspiratory sound.
This sound is often transmitted
to every part of the chest.
So as to obscure the Rales
which may be produce at
some parts of the chest.
with Bronchial Respiration
indicating Pneumonia. Recov-
ery from croup in most
cases gradual. the voice become
less hoarse the cough looser
and dyspnoea ceases by degrees
the change which has occured
in the larynx do not
disappear until several
days after the last mem-
brane is detached. the dura lin.

fatal cases may terminate in two or three days. but ordinarily ~~not~~ it is from five to fourteen days. death may occur instantly from dyspnoea. by the thickening of the membrane. and the detachment of a part of it and folding upon itself. in some cases it is not so much due to the obstruction of the entrance of air from the presence of a membrane as to the mucus and pus which collects in the trachea and Bronchial tubes. which are not expectorated or

the account of feeble
Expiratory efforts of the
child.

Pathological Character
of this disease is an inflamm-
ation of the organ with
superadd element the chief
danger of this disease is the
formation of a false
membrane. and consequent-
ly an impediment to
respiration and the obstical
is increase by the swelling
of the mucus membrane
especially covering the
vocal cords.

Diagnoses – The diagnose is somewhat difficult. there is several disease for which this may be mistaken. the most liable one is spasmodic laryngitis. diphtheria and scarlet fever is sometimes mistaken for this disease. the differencial diagnoses which will aid in diagnosing spasmodic laryngitis from true croup are as follows. in simple croup the commencing is abrupt. in true croup it is gradual. in simple croup the little patient is

taken at night between
midnight and day. on
the other hand it may be
either night or day. from
the present of a false
membrane in True croup
and from its absent in
the other. fragments of fibrin
is dicharge with the sputum
in one the other none. the cough
is very characteristic and of
a great diagnostic value.
the character of which is
dry and become more harsh
as the disease avances. and
Respiration more difficult.
the diagnoses between

true croup and diphtheria. diphtheria is a constitutional disease croup is not. true croup is confined mostly to childhood. diphtheria may occur at any age. one is an epidemic the other is not. the breath is fetid in one in the other it is not. True croup differs from Scarlet Fever in as much as scarlet is a zymotic disease and may occur at any age generally beginning abrupt.

Prognosis — The prognosis

is unfavorable (19-20) nineteen out of twenty die. If judicious treatment commences at an early period the mortality may be a little less though still great.

Treatment — It is important to began with an early treatment. if the disease has continued two or three days when it called the chances for Recovery is diminish. as the danger in croup arises from the present of a false membrane

emetics should be used in the treatment of this disease, and if properly administered they may have a happy effect they should be given within the 1st 24 or 48 hours but if the patient is delicate the emetic should not be of a depressing character. by preference ipecac and alum or the sulph. copper or Zinc should be administered these do not depress the vital powers: and at the same time promote the secretion and dislodge any

fibrinated deposits or exudation that may be present.
if the child be robust pulse full florid complexion: then you might trust to a depressing emetic such as antimony. in connection with emetics we would say if not judiciously used. they will do more harm than good. bloodletting is not necessary in this disease: as we can control the hearts action by sedative: such as Veratrum Viride or aconite. but these like emetic should not be used only in the forming period.

varatum Veride may be
given in dose of from 1/20 to
1 gtt according to the age of
the child. Calomel has had
its day and has passed out
of use with some but has been
unjustly censured. but doubtless
its has some controlling influence
and should be resorted to.
the citrate Potas and muriate
of amonia is use with
good effect. Smith gives
the following formular
for a child from 3 to 5 years
old: ℞. Potas citrate ʒi
Amonia muriate ʒii
Syr. Simplex ℥i
aqua ℥ii
misce ch. 1 teaspoonful every 20
to 30 minutes

inhalation has proven to be a very important treatment the atmosphere thoroughly saturated with steam has been employed with good success. the moist steam should be produce without overheating the room. the temperature should not be over 75 no under 72° cold application should be applied to the throat with sense however prefer. Warm poultices &c. the child should be supplied with good food such as beef tea and milk repeated at short intervals. topical treatment -

has long been ~~issa~~ used. the Nitrate of Silver being the favorite drug used in a solution of 10 to 20 gr. to ℥i. other prefer liquor ferri Subsulphatis or Carbolic acid. but unfortunately we have only Remedies and no Specifics therefore we must 1st consider well the case before us and resort to such drugs as our experience may teach us.

Respectfully Submitted
To the Faculty of the
University of Maryland Md.

Joseph A. Jones
of Georgia
Oct 1871.

AN

Inaugural Dissertation

ON

Delirium Tremens

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Charles H. Waters

Of

Pittsylvania Co., Va.

Session of 1870 & 71

Delirium Tremens

Prevail among the diseases of the wood cutting, tends the temperate mind; warning each of the dangers of intemperance, and chastising the inattentive conduct of the Drunkard, yet his prayer is ceasing to move him to raise his mind upon the bending knee.

Indeed, while continuing to indulge, he has no cause against an attack, for while Dr. Thatcher says "it is caused by the sudden withdrawal of an accustomed stimulus," Dr. Wilson gives an example of its having occurred in one who "was more known to be sober" and, I think, that we have sufficient reason to believe that it as often it tends regular as regular indulgence, thus determining an attack to be the result of habitual, but yet lighter, to wash the lay-

[illegible] life, off from the brakes of his death
[illegible] and [illegible], and at the same
[illegible] it assembles the iron hand of Satan
[illegible] as it snaps masks and fim-
[illegible]
[illegible]

In [illegible] the [illegible] [illegible], I must
[illegible]
[illegible]
[illegible] the withdrawal or continu-
[illegible] of the stimulant, I have already gi-
[illegible] of two of our standard works
[illegible] as well as an assertion that
[illegible] withdrawal of the spirit is not issued
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] language [illegible] sides convincing

as it is only after careful investigation, and
enthusiastic deliberation, of a well trained
intellect that he says: "I am not under the
impression that the sudden denial of spirits
to those habituated to their use, is not
an important cause of the disease, but this
opinion, which, moreover, is entirely
disorder is seldom seen among those who
are suddenly confined in prisons where in
dulge in."

According to popular opinion, drinking causes
the disease, but I think that delusion is
rather ascribable to the impurities found in
whiskey than to the spirit itself, as the ex-
ioning will show. In our own county
Montgomery &c. and there is various distil-
ries conducted by our Southern thing is
well known to the whisky drinkers of this city

a [illegible] of the [illegible]
[illegible], and his [illegible] of [illegible]
[illegible] of [illegible] [illegible]
[illegible] at the [illegible] [illegible]
[illegible] constantly in [illegible]
[illegible], notwithstanding this constant indulgence, I am informed by a [illegible]
in that neighborhood, Dr. W. H. Richards, that during a practice of eighteen years, he has never found a case of [illegible] among the [illegible] of those disliking ardent spirits and among those who drink impure whiskeys he has had many cases, and further he declares that he has known men who were the subjects of this disease, when drinking other whiskeys to be delivered by confining themselves to the other as found at Gilman Springs.

So from the foregoing evidence we may conclude briefly that the excess of drunkenness is excessive indulgence in impure stimulants.

Nature of the disease. On reading Prof. Wood's description of the effects of alcohol on the system, we would naturally conclude that he considers febrium Dementia dependent upon an overfull, congested state of the brain; for, he says, "the stimulant soon makes itself felt upon increased vigor of the digestive, assimilative, and nutritive functions; more perhaps richer blood is formed from the same amount of food, and the system passes into a plethoric condition, as shown by the fullness of the pulse & redness of the face." This is the language found in his 4th vol. of Therapeutics & Pharmacy, Pg. 470.

But, in his "Treatise of Medicine," he gives quite a contrary opinion, there he says, "Consider Lecium Tremens a disease, dependent upon a diminution of the degree of excitation, necessary for the support of the brain, in its ordinary actions." Now this seeming contradiction, is explained by our remembering that the Author still adheres to the opinion that the disease is caused by a withdrawal of an accustomed stimulant; but, since this is proven by modern experience to be an erroneous opinion, how shall we explain the difficulty? It is easy with Dr. Good to say "that alcohol increases the vital power of the system," then we must admit, that if the disease comes on while we continue to indulge in alcohol it is dependent upon an exalted condition, and is sthenic in its nature —

If we agree with the opinion expressed in his Practice of Medicine, "That the disease is immediately dependent upon a diminution of the degree of excitation necessary for the support of the brain in its ordinary action;" then, we must admit that it is dependent upon a withdrawal of an accustomed stimulant or that alcohol never does raise the strength of the nervous system at all; and this I think, the just conclusion. For alcohol may increase the formation of flesh but, decreases to a greater or less degree, according to the amount taken, the muscular & nervous tonicity of the system. This I think, is substantiated by Physiology. Thus, Dr. F. Donaldson, than whom there is no higher authority among modern Physiologists,

says "Alcohol is taken into the system, absorbed into the blood, & then is thrown out of the organism unchanged; producing no other effect than a disturbance of the equilibrium of the mental & nervous forces but, by its presence it does more. It retards the retrograde metamorphosis of tissue, & thus, produces fatty degeneration of the heart, arteries, & other organs."

Now, it will be noticed, that my remarks under the head of Nature of the disease tend to show that Delirium Tremens is a disease in which the brain is at once in a state of debility & depression, not, from having been overstimulated and raised to a high state of health and then suddenly let fall, but, by the continued use of an article always depressing to the nervous system.

[illegible] as much as [illegible] the
[illegible] effects of the Stramonium.
[illegible]
[illegible] and the Liver, & thus the ap-
[illegible] have suffered. There is the
[illegible] pile, with occasional relenting
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] patient wanders; he mutter
[illegible]
[illegible] exhausted into a brief &
[illegible] starts from it in de-
[illegible] be soothed.

[illegible] with some patients [illegible]
[illegible] previously as at his time,
[illegible] with cold & clammy skin
[illegible] with countenance hag-
[illegible] solitude often [illegible]
[illegible] predisposition to suicide.
[illegible]

[illegible] remedy to apply, he [illegible]
[illegible] is the [illegible] [illegible]
[illegible] used; determined to apply
[illegible] [illegible] stimulant
[illegible] exhausted vitality, it [illegible]
[illegible] to [illegible] his [illegible]
[illegible] again to the consciousness [illegible]
[illegible] which he [illegible]
[illegible] the [illegible] to all [illegible], [illegible]
[illegible] [illegible], or [illegible], with the [illegible]
[illegible] [illegible] good effects are [illegible]
[illegible] of alcoholic nature, I think,
[illegible]
[illegible], I will use them, as I think,
to save the [illegible] [illegible] the [illegible]
The "Physician" who is [illegible]
[illegible] to the utmost [illegible] [illegible]

Charles H. Wales.

AN

Inaugural Dissertation

ON

Hæmorrhage

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Alb. E. J. Lisle

Maryland

Session of 1870 & 1871

Hæmorrhages

As this is without doubt, one of the most important subjects of Surgery, it should be considered with great interest by every Surgeon and Practitioner. It was considered by the Ancients, as the greatest enemy which they had to overcome, and so great was their dread of it, that they constantly hesitated and even refused to operate among parts, where they might expect to meet it. In amputations they only cured from the body, those parts which were already dead from mortification. They then performed operations by means of cauteries and ligatures, which we now with more certainty and precision, do with the Knife. Not only do we

raw hemorrhage as an effect of surgery, but we are constantly called upon & compelled to resort to surgery to relieve the patient and arrest the flow.

Hemorrhage derives its name from two derivatives viz: "αιμα" blood & ῥηγνυμι, to flow It literally means a flow of blood.

Hemorrhages may be divided into various kinds, but the two which we constantly come in contact with viz: 1st Active and 2d Passive The first of this division, Active may be a result from wounds, inflammation or excitement. Passive, may result from a non-return of venous blood, as for example, varicose veins, or, it may be a consequence of the coats of vessels & also the blood in these vessels, as in people of a strumous or scorbutic diathesis.

The principle symptom which announces the onset of any kind of hemorrhage, is the appearance of blood. By a mind of instinct implanted in us by Nature, or perhaps by experience gleaned from facts, there is always more or less alarm occasioned by the appearance of this fluid. With what anxiety does it fill a poor patients mind when he coughs up a mouth-full of blood he views it as his signal of death. "To expire by successive hemorrhages is perhaps the least painful and yet the most awful mode of death. The repeated loss of blood so directly intimates approaching dissolution, and the patient feels his strength ebbing

so perceptibly away at each return of Hemorrhage, that he clings tenaci-ously to the life yet left." Those of the most resolute mind are overcome with anxiety which they cannot conceal and they with despair portrayed in their countenances, look round for some one to delay at least the fatal moment. Then it is that the surgeon feels himself so responsible that is with him an anxious and exciting scene: If the bleed-ing be slow, and gradual as from a polypus of the nostril or from a wound or even from a cancer or some extensive war the surgeon is sent for, from house to house at any hour of midnight and made unhappy for weeks and often

repeated uncontrollable hemorrhages, he sees his patient expire. On the other hand supposing the bleeding to be sudden and unexpected as from the bursting of aneurisms of arteries, which cannot be immediately discovered there is great danger of the patient expiring even in the surgeon's hands. These are scenes which try all the coolness and presence of a mind which a man possesses. Here lies the secret why the bravest and most courageous of surgeons approach certain operations with a feeling of sinking of the heart. It is that which causes the pale face the trembling hand & the anxious countenance which are

so often perceived in the best surgeons, for it has been truly observed that no surgeon can deepen the color of his cheek, when the patient who had laid his life in the surgeons hands is in danger of expiring from the loss of blood, and the actual death of a patient cannot but leave a lasting melancholy on the Surgeon's mind. In principle diagnosis between Arterial and Passive is the manner in which the blood issues from the surface and the color and characters of the blood which comes out. The blood from an artery is of a bright scarlet color and issues from the vessel per saltum that from a vein is dark red and oozes from wound.

The modes of arresting Hemorrhage are generally divided into 3 classes viz: 1st Vital 2" Chemical 3" Mechanical

1st Vital are those which Nature herself adopts to subdue the fatal tendency

2nd Chemical are Cauteries, Cold, Styptics Astringents &c

3rd Mechanical are 1st Cauteries, Compression. Ligature Torsion, Acupressure

We shall first consider the Vital

1st When the artery is completely severed After an artery is cut, an effusion of blood is thrown into the surrounding cellular tissue and between the artery and its sheath and this with the diminished force of the circulation from the loss of blood contribute mostly to the desired effect. If,

however, the divided artery is up to nature and no collateral branch be too near there will be formed three (3) coagula. 1st An external one which shuts up the mouth of the bleeding vessel 2nd one of lymph just at the extremity of the canal 3rd one internal one which is formed by the blood in the artery and which is continuous with the one of lymph. But if the artery has been divided near a collateral branch, no internal one is formed. Even if Agaric, Sponges & Styptics be employed its formation is yet very doubtful, depending altogether upon the amount of pressure used.

But if the Ligature is used in these cases we have only two coagulum formed, an external one can never form, but we supply its place by the Ligature itself.
But where the artery has been only punctured or partially divided, the process is far different. The difference consisting in the changes which goes on around the artery. A thin coagulum of blood is effused, between the artery and its sheath, both above and below the wounded point, and probably lymph is thrown out to fill up the internal coat.
But this is only a temporary barrier and the permanent suppression must be effected either by reparation or obliteration.

In order that reparation may take place permanently, the vessel must be below a certain size, and this is far more likely to occur if the wound be longitudinal or oblique than if it were transverse. for if it is a transverse wound every time that the heart beats, the arteries, on account of their elasticity, stretch and their calibre is increased. but the cicatrix formed not being so elastic is very liable to break out afresh. The ancient surgeons resorted to another method. They completely severed the vessel which annoyed them and then arrested the flux. Even modern Surgeons resort to this as, for instance in the Temporal Artery, which has been punctured by Lancet.

Now in considering the Chemical mode of arresting Hemorrhage the Cautery is the first we shall notice. This more properly comes under the head of the Mechanical than the Chemical. But it may be said to act in both ways. As a chemical it acts by combining with and consuming all of the chemical constituents ~~and leaving~~ a black eschar of carbon on the surface of the wound. The next in order is Cold. This may be applied either by cold air or water. Sometimes this may be all that is required to stop arterial or venous oozing from an exposed surface. They act as an astringent and are beneficial, in cases where it would be

injudicious to use other means, as for example in operating in the vagina or in other hollow organs of the body, a piece of ice, or a pledget of linen after being dipped in cold water will stop the flow of blood, but when the bleeding persists and the application of cold fails to constrict the vessels we are compelled to resort to other means.

<u>Styptics.</u> These act by causing the vessels to contract and they also aid in forming the coagulum both in quickness and solidity. They are used in operations, where a general oozing ensues, and where the application of cold in any form has failed to produce a good result.

The principal objection to their use is that they change the surfaces of the wound and always prevent union by the first intention. The most useful of the styptics are Styptic Collodion, which is a solution of Gun-cotton in Ether and Alcohol & when applied to a wound the Ether and Alcohol rapidly evaporate leaving the cotton adherent to the wound, next is Ferri-Sub-Sulphate (Monsel's Sol.) Terebinthae Oleum, any of the acids, Aluminis & Potassae Sulph. Argent. Nitrat. and many others too numerous to mention. The ancients centuries ago left nothing of this nature untried and we should judge of their little success whether we should rely on them or not.

We shall now take up the next i.e. Mechanical and the 1st in the category is Fire or Actual Cautery. At a very early period in Surgical History the Surgeons relied on Fire as an indis-pensable agent for suppression of Hemorrhage. They generally applied it by means of a red-hot iron, placed directly in contact with the bleeding vessel. They believed also that this method acted as an astringent and to add to its supposed astringent power, they dipped the cauteries in red wine or strong vinegar. A num-ber of these cauteries were heated & in succession applied to the mouths of the bleeding vessels, till all bleeding stopped

Such scenes as were enacted there could not be better portrayed than by the pen of the illustrious John Bell who says that "the horrors of the patient with his ungovernable cries together with the hurry of the operator and his assistants, the sparkling of the Irons and the hissing of the blood against them must have made terrible scenes and Surgery must have in those days been a horrid trade". This mode prevailed for centuries and is one of the most decided proofs that surgeons could not approach certain operations without feelings of awe and alarm. But they soon introduced another mode of averting death by Hemorrhage

They poured on the exposed surface, boiling fluids as Tar, Pitch & Oils &c and during battles at sea they would always have Kettles of boiling liquids down in the cockpit ready for great operations to be done. But this mode of subduing the flow is used when there is a continued obstinacy in the vessels continuing to bleed and is to be used as a dernier resorte by all modern surgeons. The next Mechanical mode is <u>Pressure</u> In 1731. J. L. Petit asserted that in the employment of many so-called specifics, in Hemorrhage: very few would have succeeded, had not pressure been used and even when

they used Caustics, they resorted to pressure by having a bandage bound tightly over the part: so the arrest of the bleeding was due more to the pressure used than to the Caustics. The use of pressure either above the point of bleeding, or at the precise point of hemorrhage, has been long in use and although not now used as much as formerly yet it is of too much value to be altogether given up. In cases where the arteries are small and where there is a general oozing without being able to detect exactly the mouths of the vessels, there will the application of a compress, be attended with much success, or if the vessel wounded be of some size

and its course lies along a bone,
the bone, itself will yield a firm support
and a compress may be set upon it.
to keep the sides of the artery to-
-gether and thus stop the bleeding.
Compression is also indicated where
the vessel is so deep-seated that it
would be very difficult to reach it
without cutting through important
parts. Compression may be made
by applying layers of folded bandage,
above each other and directly over
the bleeding part. and firmly binding
them down with a roller drawn tight
This is called a graduated compress.
Various modes have been invented so
as to have pressure. the best of these is

the Tourniquet and in fact before this invention pressure was generally made by the hand and if intelligent assistants can be had this is a very effectual means, but, where such can not be had much blood is lost during the excitement of the compressor and the struggles of the patient.

The Tourniquet

As early as 1718. J. L. Petit is said to have invented this instrument yet it was only an improvement on a machine used by Scultetus, still the credit of bringing it to almost perfection has been awarded to Petit. Even in this enlightened age but little improvement have been made on his orignal plan

His machine done its work properly and no more could be expected. But prior to this, Morel in 1674 at the siege of Badenaux, used a broad tape or bandage even a handkerchief was passed round the limb, and twisted several times, but the objection to this was that it prevented the return circulation and during the course of an amputation or a great operation much more blood was lost, than was necessary. Some surgeons made pressure with a hard substance or even a key pressed down on the artery, along its course. Dupuytren invented an instrument which he called a compressor. It was made of a steel hoop with a pad on each side

and a screw attached. This no doubt answered very well when pressure was needed only for a short time. But few patients could submit to the great pain and agony occasioned by pressing the parts long enough to be certain of controlling the hemorrhage. But in addition to the advantages which we gain by the use of this instrument there many disadvantages connected with it. Suppose in amputating the thigh the Tourniquet was applied along the femoral artery. the pressure must of course be exerted on both the superficial and deeply seated veins. This pressure with the condition of limb would favor very much the engorgement of the limb, and

when the first incision is made out comes a gush of blood; now the Tourniquet is screwed tighter, which fails to suppress it why? because the blood comes from below and not from above, and thus far more blood is lost than if direct pressure was made along the artery by the fingers of a well-trained assistant. On this account many surgeons have abandoned the use of the instrument altogether, but if placed in such circumstances that you could not have an educated assistant we are compelled to adopt it in spite of the inconvenience. In addition to the various modes we must find some method which the surgeon can rely on more safely & be attended with safety to patients

And now we come to another mode which will answer both of these requirements. namely the Ligature. The word ligature has its origin from the Latin verb "Ligo" to bind". Although this was used long before Pare's day but dropped either on account of having no faith in it simply because they had not any knowledge of the manner in which it should be employed, still it is now admitted that to the famous Ambrose Paré the credit of readopting this most valuable instrument is due. He argued and believed that he was taught through special favor by the Sacred Deity. But he himself after discovering this new idea in Surgery

when he operated seemed doubtful of its efficacy, and so he had red-hot irons ready in the next room, so that if during his new method any-thing should happen, he could resort to his old and cruel ways. He at length became fully convinced through a happy experience, that such preparations were altogether unnecessary. He communicated these facts to his fellow surgeons, and entreated them to bid adieu to Cauteries. Boiling Pitch and Oils, and to embrace his new method and argued that Antiquity and Custom in such things as are performed by Art ought not to have any sway authority or place.

contrary to Reason, as they oft times have in civil affairs, then let no man say unto us that the ancients have done so. His application of the Ligature although accomplishing the same result was not actuated by the same principles. What he wished to avoid, That is what we desire to attain. he wished to bind up the vessel without touching or injuring it and so he passed the ligature at a finger's breadth from the wound passed under the artery and bound up flesh, artery and all together. It is our desire to catch up the artery and nothing else and to secure it firmly with a hard Knot.

The effects of a ligature on an artery should now be taken into consideration. The artery consists of three coats viz: an external, middle and an internal coats. Now, when the ligature is tied firmly round the artery the middle and internal coats give way, under pressure of the cord, but the external being far more dense and strong than the other two, does not yield. These inner coats being so very brittle that they break very easily and when they break their cut extremities contract and turn upwards and thus acts as a nucleus for a coagulum to be formed. The non-passage of blood through the artery of course there must be a larger

amount of blood sent through the many collateral branches above the ligated part, and these collateral branches under the extra amount of pressure undergo enlargement and dilatation. When the middle and internal coats are severed they undergo inflammation and lymph is effused between the opposite extremities; the base of the internal coagulum will rest on these extremities, while its apex or cone is directed upwards and inwards. The external coat of the artery also becomes ulcerated, at the part where the ligature is applied and in fact the artery becomes obliterated & becomes a shrivelled cord up to first branch.

The mode of ligating and kind of ligature to be used differ, as to when and where the ligature is to be applied and size of the vessel to be secured. If to tie the artery from an open wound you may pull the vessel out of its sheath by a Tenaculum or another instrument, which experience says is best for this purpose viz: Liston's Bull-Dog-forceps then passing around it. the ligature and securing it with a double reef-knot. But if to get at a vessel at any point in its continuity, as for Aneurism you must take great caution. Some Surgeons prefer making a linear incision over the course of the artery, and thus reaching it while others,

prefer an incision, oblique or transverse, to the direction of the vessel. In the ligation of nearly all the arteries, we have certain land-marks and guides which we must study well and bear constantly in mind. but again others have no such certain Anatomical knowledge and we must then have recourse to imaginary lines. Great care must be taken so as not to injure many of the accompanying veins or Phlebitis may be induced. The nerves also must be guarded against, for their injury will or may be attended with serious consequences. A Ligature to be efficient must be firm, hard, round and unyielding and each surgeon has his choice.

Animal ligatures were first suggested in 1816 by Dr. Physick of Philadelphia, but he in his original idea had an apprehension that these animal substances might become dissolved too readily and suggested that they may be impregnated with varnish and thus retard the dissolving process. The advantage he claimed for these was that they caused no irritation afterward such as are often seen from the use of the silk ligatures. This able surgeon also recommended the use of metallic ligatures actuated by the fact that metallic substances traverse about the body at rest without occasioning any great amount of irritation.

He therefore thought that ligatures made of metal would, to their duty kindly, and efficiently. He, accordingly used some of lead, some of gold, silver &c But I myself can not see any advantage of these over either the animal or vegetable ligatures, for there is no necessity of leaving them in the wound for if they do no harm they will certainly do no good.

In applying any kind of ligature we must go according to certain well established rules by which we must be governed. 1st Apply the ligature to artery itself, being insul-ated from all surrounding parts 2nd Tie both ends of either a punctured or severed artery for collateral circulation

may be established and Secondary Hemorrhage ensue. 3rd In wounds if the artery is not discernible instead of ligating the main artery of the limb it is best to enlarge the wound till you can secure the injured vessel, and in amputations if you are anxious to secure all the vessels and using the Tourniquet, relax it and they will be seen very readily 4th In using ligatures of silk & thread we cut off one end of it leaving the other end with the knot, extending into the wound 5th Never ligate an artery too close to an anastomosing branch for there the impetus of the blood will be too great for any ligature to be formed and when the ligature comes away Secondary Hemorrhage comes with it.

Now as to the time a ligature is allowed to remain in the wound. In some arteries it takes longer for the healing process to go on than in others and conse-
-quently the ligature is either hastened or retarded. As for instance in the Radial or Ulnar arteries the ligature may come away in from the Eighth to the Twelfth day while in the larger arteries as Iliac, Femoral or the Axillary, it is necessary and customary to give them plenty of time as from Twenty to Thirty days. They generally require a little traction and very gentle twisting before they come away But we must be careful and not use too much force.

There is also another mode of arresting the blood or rather another manner of applying the ligature. Supposing we had a large mass of tissue and from this mass a general oozing of arterial blood is constantly flowing and this we may have very often as in operating for strangulated hernia when a large piece of omentum is cut off we just throw a ligature around the mass draw it tight and securing it with a double knot then we leave the little stump which is well ~~and thoroughly~~ secured by the ligature hanging out just at the edge of the incision. This is called ligating "En Masse" The process of ulceration and also of

cicatrization go on in these cases the same way as when a single artery is secured. This is without doubt a very efficacious mode of subduing the flow and has found favor with a great many surgeons
There is also another very good way of diverting death by Haemorrhage which is called Torsion
This word has its origin from the Latin Torsio - to twist and it is applied in its proper signification for here we we do literally mean a twisting of the artery. The originality of this idea was contended for by Amussat Velpeau and others But in an old surgery published 1736 the following

paragraph may be found "a twisting or wrenching of the ends of the arteries and veins and giving them a few turns and which plan was proposed by the Ancients" but they seemed to think very little of this plan for they said that with the blood vessels you may also include some muscular fibrillae and the motion of restitution being promoted both by the arterial impulse and the contraction of these fibrillae that they would necessarily untwist and hemorrhage must ensue. This mode of performing Torsion is very simple. The end of the artery is taken up with a

pair of forceps, drawn out of its sheath and twisted several times according to the size of the vessel. Surgeons differ as to the amount of twisting to be done, some say to twist till the end of artery is twisted off: others say it is unnecessarily rough to twist to such an extent So it is mostly left to the decision and judgement of the operator. The advantage claimed by those who advocate the practice of twisting off the end is that it leaves no foreign body in the wound but this is refuted by others who say that the twisted end of the artery is itself a foreign body and must be discharged with

the rest of the excretions from the wound. The only advantage which I can see can accrue from this method is that it may be readily and safely done in the small arteries and can be done much more speedily than can the ligation of these vessels but in vessels of any important size it would I think be unsafe and unwise to trust to this method but rather resort to the better plan. the one in which we can place implicit confidence without any fears of dan-gerous results and the one which always gives the most satisfaction both to the operator and to the patient that is to resort to ligation.

The next plan for overcoming the discharge of the sanguineous fluid from the arteries is called <u>Acupression</u>. This literally means pressure by needles so as to arrest the circulation for a short time and thus prevent hemorrhage. This method was introduced by Sir Jas. Simpson of Edinburgh. He strongly advocated it in preference to the ligature. There are four methods of applying Acupression any of which may be used advantageously and is undoubtedly a means of stopping the flow which may in some operations be preferred to the ligature as in operating for Hare-lip where the flow of blood from the Coronary Arty

may be arrested by the same pin that is used to bring the edges in contact. But, although this may in some cases act as a substitute for the Ligature yet we are not justified in dis-
-carding altogether the use of the thread and substituting in its stead the needle and we ought not to cast aside a certain and useful remedy for one that is of doubtful efficacy. But although it can not be used in its stead yet it may be entitled to the name of a most useful auxiliary to the Ligature Therefore let each method of arresting hemorhages be applied to those vessels in which the Surgeon thinks would be the most useful and as each case may need.

Diphtheria.

The term diphtheria, is applied to a blood disease, which like other zymotic affections has a local deposit. The inflammation occurs on all mucous surfaces, and also on those derived of the cuticle. Diphtheria presents itself under two forms, primary & secondary. The former of which is most common. The secondary is commonly met with as a complication or sequel of scarlatina, rubeola, & sometimes

of typhoid fever. The symp-
-toms, character & presenting
no material difference, only
in the fact that occurring as
such, is more serious & apt
to be fatal. Ordinarily the
secondary form commences be-
fore the primary affection
is arrested, so that their is
no intermission between the
affections. It is thought by
some that the preceding diseases
predispose to the affection
owing to the fact that it is
liable to present itself, if
their is pre-existing faecial

inflammation.

Anatomical Characters. The characteristic feature of the disease is the presence of a pseudo-membrane, the invasion of which is attended with redness of the mucous membrane of the fauces, in the vicinity of the tonsils. Having thus commenced, it is with great rapidity extended. The color of the inflamed surface is sometimes of a deep bright-red, & sometimes a dusky hue, which is indicative of a vitiated state of the blood. So rapid is its

extension, that within a few hours, almost the entire faucial surface is involved in the inflammatory process. With the continuance of this inflammation, the mucous membrane is thickened, softened, its follicles swollen + secreting abundantly, and also more or less submucous infiltration. In some cases the tonsils are considerably swollen, so that they really touch each other. Generally the tumefaction is no more than in simple pharyngitis. Within a day, + sometimes in a few hours

by examination can be detected in the incipiency of the inflammation, a minute semi-transparent & almost diffluent point; the substance of which is fibrinous, gradually becoming firmer, thicker, broader & presenting a gregiste appearance. There is nothing clear except local changes about the pharynx. Zymotic diseased tissues that are red during life, are often pale after death — hence because mucous membrane pale & healthy looking after death, is no indication that

that it has not been inflamed during life. Tonsils usually less swollen after, than before death, suppuration slight, except on small mucous surfaces & this rarely observed. Kidneys perfectly healthy in many cases, but in others where albuminuria existed, are deeply congested. Lungs not changed except the disease be tracheal, and in that case bronchii almost always evince evidences of simple & specific inflammation. Sometimes petechial & ecchymotic spots are observed

on the body, also clots in the heart.
Clinical History. Invasion not
always alike, some cases are ush-
ered in by acute symptoms.
Such as chills or rigors, quickly
succeeded by fever, which in
some instances is intense.
Accelerated pulse, face somewhat
flushed, sub-maxillary region
a little swollen, more or
less headache, swallowing some
what interfered with, soft-
grayish white coating upon
the tongue. One or both
tonsils are covered with mem
brane, and surrounding mucous

membrane red & oedematous
Occasionally breath has a bad
odor & even gangrenous
sometimes. Under judicious
treatment a patient will
usually recover in five or
eight days. Often the mem-
brane is confined to fauces.
Their is little reason for
alarm, But it may exte-
nd forward blocking up
the nares, The indications of
which we have before the
formation of membrane;
are redness of the nose,
the discharge of a yellowish

ichorous fluid, which continues after the membrane is formed. When it extends to the larynx & bronchii, it is the most serious form of the disease, producing diphtheritic croup & other symptoms, analogous to general sporadic croup, voice changed and at last it is not more than a mere whisper, hoarse croupy cough, difficult breathing & in some instances the patient is very drowsy. Again the lips & nails are blue, alae nasi expanded

in inspiration & finally death by suffocation. Swelling of sub-maxillary & cervical glands almost always; and never absent when the disease is severe—hence one of diagnostic signs.
Vomiting is not unfrequently one of the earliest symptoms. Tho' occurring as such is not of much importance; but very unfavorable occurring in the last stage of the disease. The presence of the membrane may be detected in two or three days.

and in some instances not until as late as ten or fifteen may be renewed after being removed three or four times. Convulsions occur in a few cases, but not serious, unless in the latter part of the disease. Pulse varies very much, sometimes running to 140. Sometimes after having been very frequent, falls suddenly below normal standard. Little or no complaint of soreness about the throat. Fetid breath is owing to decomposition of false-membrane.

Diarrhoea is a grave symptom and should be arrested as soon as possible.

Consumption. Prevails epidemically & is not a disease of a single season, but once established may continue for years. Contagiousness not fully settled, Tho' it has been contracted by mother from suckling infant. Trousseau & Bretonneau have both tried to inoculate their own throats but failed. Professor Howard thinks it is contagious, can be transported from

one neighborhood to another by the sick, He also advises one to be cautious, and not to permit healthy children to handle anything that has been used by those thus affected; such as linen & table furniture.

Diagnosis. Seldom difficult. pseudo-membrane pathognomonic. Simple pharyngitis is accompanied by fever & swelling of cervical glands, but not the membrane. Scarlet fever sometimes complicated by false membrane; but the exudation

is not exactly similar. In Scarlet fever it is usually pul-taceous & besides it has no tendency to spread to the nasal pas-sages. Frequently associated with other diseases; such as Scarlet-Fever & Typhoid. It is thought by some to be the same as scarlet-fever, not so because they mod-ify each other, which would be impossible were they identical. 2nd If diphtheria be attended by any eruption, it will be exceptional & then scarlet fever will be prevalent. 3d Characteristic strawberry & raspberry

tongue of scarlet fever, which does not exist in diphtheria. 5th No desquamation of cuticle in diphtheria; we have in scarlet fever. 5th Diphtheria has no definite period; scarlet fever is a self-limited disease 6th Scarlet fever has no remissions or relapses; diphtheria has both. 7th Scarlet fever very rarely attacks same person twice, diphtheria does. 8th Sequelae different, albuminuria + general dropsy of scarlet fever, paralysis of diphtheria. 9th Neither of them have the power to

protect the system from one another. True croup is regarded by some as the same disease; and so far as the exudation is concerned, there is very little difference. True croup is a sporadic disease, diphtheria usually epidemic. In true croup we do not see the false membrane in any other mucous passage, except the larynx; we do in diphtheria. Extraordinary swelling of cervical glands in diphtheria; is unseen in true croup. Croup does not entail long continued change

of voice, nor paralysis, nor anaesthesia of the different parts, nor in fact any of those sequellae peculiar to diphtheria. Croup is confined to children, Diphtheria does not spare adults nor even the aged.

Prognosis. Variable; in some local it is very few die + then in others nearly all. Cases in which the Larynx + Trachea are involved are the most serious. In some cases the peculiar toxemic poison overwhelms the nervous system in forty eight hours. Hemorrhages from any quarter are unfavorable.

Treatment. Symptoms are of two kinds — general & local. General treatment should be sustaining such as the use of good food, tonics & stimulants. Invariably should such a course be pursued. There is no antidote for of diphtheritic poison, but if we can sustain the patient, the disease will subside spontaneously. As an anti-diphtheritic — Potassae Chloras is highly recommended, & let the patient take from ʒi to ʒiss during the day

℞ Chlorate Potassa ʒi

Syr Ar Flowers ʒss

Aquae ℥iiss

Ar

Dessert-spoonful every two or three hours, and let it be swallowed slowly if possible.

Potassæ Permanganas is also very good. The acids are especially indicated when the adynamic symptoms are well marked.

Whenever Quinine Sulphas is given as a febrifuge, a full dose is necessary. Say 5 grs to a child five years of age, and repeated after several hours. It is much oftener given as a tonic in small doses in combination with the Tincture of the chloride of iron.

Concentrated liquid food should be employed throughout the disease. Milk, beef tea, wine whey, & whiskey punch. When fauces become blocked up by membrane the administration of an emetic consisting of Alumen & Ipecac will be serviceable

Local Treatment. Is advantageous; such as a solution of some of the mineral acids to mild cases Argenti Nitratis or Zinci Sulphas grs x to an ounce of water. When intense use ℈j to an ounce. Also in infants grs iii to an ounce seems to be sufficient

applied with Camels hair pencil
The following is however one of
the best

℞

Chlorate Potassa ℥i
Muriated Tint Iron ℥ii
Glycerine ℥ii.

When there is felt in the
throat Dr Metcalfe has found
the Iodide of Bromine beneficial
For external applications the
Linimentum Saponis is very
good & then cover with flannel
When the nostrils are much
obstructed & giving exit to an
irritating fluid, I get a weak

solution of Zinci Sulphas 2 or 3 grs to an ounce of water. For diarrhoea prepared chalk, albuminuria, dry cups over the renal region, & diluent drinks such as flaxseed tea. Tannic acid may also be given. But the chief hope consists in the employment of tonics nutriment & Potassæ Chloras. Though feebly I have elucidated this subject, still I am more than desirous that it may to some extent, meet with the Faculty's approbation.

Yrs Respectfully

Wm B. Bower

of

AN

Inaugural Dissertation

ON

Six Cases of Disease

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

W. Wyatt Wiley.

Of

Maryland.

Session of 1870 & 71.

A.

Clinical Report of Cases.

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Case 1st

Traumatic Tetanus

Harriet Smith (colored) age 54 admitted Oct 26th 1870. at 1. P. M. According to the statement of the patient, on Oct 18th she accidently trod upon a rusty nail, which entered the sole of the right foot just opposite the middle of the meta-tarsal bone of the little toe and passed up grazing the external side of that bone to the integuments of the dorsum, but did not penetrate the same. The entrance of the foreign body produced such excruciating pain as to cause her to fall to the ground, and before any assistance arrived she suc-

ceeded in extracting the nail; a few drops of blood escaped from the wound, and the pain soon passed off. She washed her foot, applied some domestic remedy and secured it with a bandage; the healing process appeared to progress favorably, there being but little discharge from the wound, and by the fifth day the puncture through the skin was scarcely perceptible, and she experienced but slight tenderness in the injured foot when she bore her weight upon it.

On Monday the 24th, while engaged in washing some clothing, she for the first time experienced slight

uneasiness, and stiffness in the back of the neck which however soon increased to such intensity as to cause her to take to her bed; then quickly followed some of the usual symptoms, such as rigidity about the jaws with some pain in attempting to open the mouth, uneasiness in the region of the epigastrium, which was soon superseded by acute pain shooting from the pit of the stomach towards the spine. From that time to her admission I could not learn anything concerning her symptoms. When she first came under my observation, which was about 3 p.m.

On the 26th her condition was as follows: her intellectual faculties undisturbed, She did not complain of any pain, her pulse 116, respiration 24, temperature 100, tongue much furred, pupils dilated, her bowels had not been moved for several days, there was partial trismus the patient being able to open the mouth sufficiently wide to protrude the tip of the tongue. Opisthotonos existing in so slight a degree as to be scarcely deserving of notice, the abdominal muscles were very rigid, the muscles of the fauces were so involved, as to render deglutition impossible, in fact her whole trunk was quite

rigid and firm. Her treatment was as follows: At 2 p.m. there was administered Magendie's Sol. ℞ Morphia ♏vij hypodermically. At 3 p.m. it was repeated, and by 3.30 she had recovered the power of deglutition to a limited extent; it was now considered advisable to give some purgative, and accordingly Pilulae Comp Aloes ♏xiij were administered. At 4 p.m. as there was such marked improvement, and the effects of Morphia not having presented themselves, it was considered judicious to repeat the same amount of Morphia At 4 40 the effects of the drug

were quite marked; the patient became drowsy, the pupils contracted, the skin moderately warm and moist, the pulse about 96. From this time until 6 p.m. not any medicine was administered, but some one remained with the patient who aroused her every few minutes from her stupor. At the expiration of this time the Surgeon in charge of the Hospital visiting the patient, and after a thorough examination, made a free incision over the site of the wound and, ordered a flaxseed poultice to be applied. Since she continued in a very drowsy condition, he likewise ordered a small quantity

of the Sulphate of Atropia to be given hypodermically: after a reasonable length of time not any change being observeable, this drug was repeated again, and again at certain intervals until gr 1/7 of Atropia had been taken in this way.
At 10 p.m. her pulse was about 100 pupils still greatly contracted, there was not any change in the temperature, and it was with much difficulty that she could be aroused. The Atropia having thus far failed to produce the desired effect, the Resident Physician determined to try Caffeina, and accordingly a certain amount was thrown

up the rectum; this was repeated once or twice. At 2. A.M. the effects of this drug was very manifest, the pulse became more frequent the pupils dilating, the skin was not so warm, and she was more easily aroused.

At 4 A.M. her pulse was 128, respiration 28, temperature 101, her pupils moderately dilated, the drowsiness had passed off, and she became very restless, and was constantly endeavoring to turn herself from side to side. At 11-35 she was suddenly seized with a spasm, and expired in seven minutes.

A post-mortem examination was not made.

Case 2nd

Typhoid Fever.

John Preston, age 20 Occupation — Admitted into the Hospital July 29th 1870.

His general health had always been exceedingly good. On his admission he stated that he had been suffering with an intense pain in the frontal region for several days, accompanied with anorexia, and constipation.

Saturday July 30th. his pulse was 120, temperature 100, tongue thickly coated, and he complained of great irritability of the stomach. His treatment consisted of pulv Ipecac gr xv, followed in a short time by Hydrarg

chloride mite gr x.

July 31st. he appears to be entirely relieved of the gastric distress, his pulse is 120, temperature 102, tongue covered with a yellow fur, and his bowels are quite loose. He did not take any physic to-day.

August 2nd. There is a very little change his pulse 120, temperature 102½, he has a hacking cough, his bowels continue loose, and the only nourishment he takes is about 2 gills of milk in the 24 hours.

Prof McSherry saw him for the first time to-day, and prescribed ℞ Ammon carb ʒj aquae ℥ij; acid citric ʒj aquae ℥ij & ʒj of each

every 2 hours in a small quantity of sweetened water, and requested his nurse to endeavor to make him take some beef-tea.

August 3rd. pulse 120, temperature 103. Skin hot and dry, the tongue presenting the same appearance. he had three evacuations during the 24 hours which were yellowish in color and quite offensive. Treatment the same.

Aug. 4th pulse 136, temperature 104½ Slight tympanitis present, gurgling very audible in the right Illiac region, but he does not complain of any pain upon pressure in that situation. he had two evacuations

during the day, his rest was much broken during the night. The same treatment continued.

Aug. 5th pulse 120, temperature 103½ tongue rather dry and brown, he had epistaxis, the rose colored spots for the first time visible, he takes a very little nourishment, and rests badly at night. Treatment ℞ Acid Muriat gtt iij. ℞ Cinchon Comp ʒi ℥ every 2 hours.

Aug. 6th pulse 120 and weak, temperature 103, he coughs a good deal the tongue is protruded with difficulty, there is much tenderness over the right Iliac region, he was delirious during a portion

of the day. Treatment the same, but since his rest at night is so much broken Chloral Hydrat gr xx was administered at bed time.
Aug. 7th pulse 140 and feeble, temperature 103, respiration somewhat hurried, sordes collecting upon his lips and teeth, he passes his urine and faeces involuntarily. Treatment consists of Tr Cinchon Comp ʒj Spiritus Frumenti ℥ss.- ℞ every 2 hours, and the diarrhoea was checked by an enema composed of Khatany and Chalk.
Aug. 8th pulse 132, temperature 104, respiration 44, had two evacuations during the 24 hours, the rose spots

and of Sudamina are very thick;
Treatment the same.
Aug 9th pulse 116, temperature 103,
respiration 44, sordes very thick
upon the lips and teeth, he is con-
tinually catching at imaginary ob-
jects, there is much meteorism, he
has four evacuations during
the day. Treatment the same with
the addition of Krameria & Chalk
for the diarrhoea.
Aug. 11th pulse 132, temperature 103½
respiration 48, epistaxis occurred
several times during the day, his
bowels were moved twice, his
rest during the night was very
imperfect. Treatment Rx-Olium

Terebinth ziij, mel depurat ℥ss,
Quinin Sulph ℈j, aquae Camphori
℥jss — ♁ ℥j every 2 hours; and
at bed time Potas Bromid grxx
was given.

Aug. 11th. pulse 120 temperature 101½
respiration 44, tongue brown,
dry, and fissured, he has a good
deal of Subsultus tendinum, he
is delirious most of the time, his
bowels are very loose. Treatment
the same.

Aug. 12th pulse 140, temperature
104 respiration greatly hurried,
mucous rales heard over a greater
portion of the chest, he lies quiet
with his eyes half closed and does

not recognize anyone, his faeces are passed involuntarily about every hour. His treatment consists of stimulants internally, and his body was sponged with vinegar and water.

Aug. 13th his pulse is not perceptible, he lies upon his back, and is continually working himself towards the foot of the bed, large drops of sweat appear over his face; from this condition he gradually grew worse and expired at 12-45 p.m.

I regret to have to state that no autopsy was allowed.

Case 3rd

Skin Grafting

Michael Graham, an Irishman, aged 26, occupation Smelter, was admitted into the hospital March 10th 1869, having received a severe burn on the previous day. Whilst at work in a foundry, in the act of carrying molten iron from the smelting furnace, an accident befell the ladle filled with the fluid metal, by which a quantity of this highly heated liquid was poured into the foot-hole on his left leg, severely burning it from the knee to the ankle. Under the common hospital treatment of the internal administration of opiates, and other

carbolic acid 2 solution locally the sloughs soon cleared off, leaving a red granulating surface from near the knee to the ankle. As he was a healthy individual, the healing process commenced with great activity, and, soon a circle of new skin appeared from both the upper and lower edges of the ulcer, and advanced with much rapidity over the raw surface. When this process was gradually arrested, and it was impossible to do anything further with any of the various stimulating agents, and after remaining seven months in the hospital, he left, still bearing a large ulcer

upon his leg. At the outer side of the limb the new skin from the upper and lower edges had met, growing into each other. The inner side of the leg was still an open sore.
On the 3rd of March 1877, he was again admitted into the Infirmary for treatment, the ulcer having made but very little progress in healing, his treatment this time consisting of almost the same as that previously made use of, he again went away after having been in the hospital for about three weeks, very little improved. In July Prof Chisolm determined to repeat some recent experi-

ments successfully put into opera-
tion by Mr. Pollock of London —
experiments first suggested and
tried by M. Reverdin of Paris.
On July 25th 1870, in the Opera-
tone of this patient was engrafted,
a very small piece of skin, taken
from his chest. The chronic ulcer,
still occupying a large area on
the inner side of the leg, was about
three inches in length by one and
a half to three inches in width.
The surface of the sore was bright
red secreting pus, with the edges
consisting of a thin pink pellicle
of skin of apparently low vitality.
The ulcer had now existed seven-

ture minutes. Before performing his operation, Prof. Chisolm in a clear and comprehensive manner explained the nature of the superficial portions of the skin. He stated, that it was not his object to take the outer layer of epithelium, which consists, of what Mr. Beale, of London, called, formed, or dead, matter, cells without nuclei, which had, playing their part in the living economy and, possessing no more organic matter, were incapable of further growth or reproduction. From these dead cells nothing could be expected. The living portion of the

small skin graft was then under
layer of epithelium, known by anat-
omists as the Malpighian layer or
the Rete mucosum. In this layer
presides the formative power for
rapid proliferation, and this was
the essential portion to be engrafted.
The superficial epidermis was only
taken along with it for convenience,
as it would be quite troublesome
to isolate the living from the dead
cells. The dressing applied after the
operation was not removed for
a fortnight. When taken off a
small white speck marked the
place of grafting. This point rapid-
ly increased in size, and produced

a growing island of healthy skin including deep tissues. For fifty eight days after the transplanting the new skin had extended to the border of the ulcer, cutting the raw surface into two portions. For the space of an inch square a dry, white cuticle was seen, surrounded by a bluish film which marked the most recently formed skin. This bluish pellicle had become intimately fused with the old edges of the ulcer. Since the patient was rather indifferent concerning his condition and allowed the ulcer to be chafed by his clothing, this healing process was retarded. On Oct 12th 1890

to procure himself at the Dispensary for further treatment, the side of the old ulcer was at that time covered with healthy skin excepting at each end, where there was a raw surface about a half by an inch square, which was still secreting pus. By the centre of each of these surfaces Prof Chisolm engrafted a similar piece of skin taken from the patient's arm. This last operation like the first was followed by success, and, by the first of December the entire surface was protected by skin similar to that on other portions of the leg

Case 4th

Acute Peritonitis

Margaret Griffin (colored) aet 23, admitted into the Hospital December 20th 1870, suffering from a vesico vaginal fistula, which was produced by prolonged pressure upon the parts consequent upon a difficult labor 4 years since.

On Dec 22nd Prof Howard operated upon this patient, after which she was put upon the Opiate treatment and catheter was kept constantly in the bladder to convey off the urine as fast as it arrived in that viscus. The case seemed to progress favorably, and on the 5th of October (4 days after the operation) the silver

sutures & in number were removed, & the wound presented a healthy appearance. On the evening of the 11th of Oct she became very restless & complained of some uneasiness in the abdomen. As the symptoms were not very urgent a sinapism was applied over the seat of pain, & morphia sulph gr ¼ was administered hypodermically. This seemed to afford much relief for several hours, but towards morning a pain of a lancinating character came on which soon extended over the whole abdomen.

Wednesday the 5th. her pulse 112, low & feeble, & complete anorexia

and the abdomen quite painful, upon the slightest pressure. The Professor under whose care she was visited her during the morning, and at once recognized the case to be one of peritonitis, and he directed that she should have pulv Opii grs iss every hour.

Thursday 6th. The symptoms continue unabated, pulse 120, tongue much furred with red tip and edges, stomach extremely irritable, bowels very loose, the abdomen slightly distended, she is supported by her back with her legs drawn up. Treatment Rx- Morphia sulph grij, Creasote gtt viij, pulv gum acacia, Dauch Alb aa ℥j. aquae

milk & water, aqua distillata ℥ij
& ℥ss every 2 hours.

Friday 7th. There is not any improvement but on the contrary the disease seems to be progressing, pulse 130 & small, respiration 38 & much embarrassed, the abdomen enormously distended and its muscles very rigid, particularly the recti, the stomach continues very irritable and each act of vomiting causes great pain. Treatment internally the same with the addition of Oleum Terebinth. gtt. x with laudanum, and locally to the abdomen is applied Turpentine stupes & flaxseed poultices alternately.

Saturday 8th. Pulse 130, respiration 40

ing, altogether the case is since the diaphragm cannot descend, the contents of the stomach seem to be ejected by regurgitation rather than by vomiting. So that neither medicine or nourishment is retained, treatment ℞ Morphia Sulph. gr ij, Hydrarg Chloride mite gr ij, Sacch Alb gr x M. ft Chart No 6. D. One to be sprinkled upon her tongue every hour, local treatment the same. Sunday 9th. The patient's condition is now truly one of extreme peril for she is greatly prostrated by the constant vomiting, her pulse about the same in frequency but more feeble and her respiration is not altered, the diarrhoea continues, since

not any of the medicine which has been taken heretofore has been retained by the stomach her treatment was changed to the following ℞ Cream ℥j, Liq Salcis ℥j, aquae ℥iij M — ʒj every half hour, locally the same.

Monday 10th: there is a slight improvement, the irritability of the stomach has somewhat diminished, and she retains the Cream mixture, her bowels continue very loose, she rested better last night than she has heretofore; treatment in all respects the same excepting a little brandy is added to each dose.

Tuesday 11th, the pulse much reduced in frequency, respiration freer, tongue

pinilis greatly diminished, she is now able to retain every thing in the way of nourishment that is taken into the stomach. treatment not altered.
Thursday 13th. the patient is improving rapidly, her pulse is 85, respiration about normal, very slight tympanitis now remains. and little or no pain is experienced, upon pressure over the abdomen, she now takes a good deal of nourishment: as her rest was much broken during the night Morphia Sulph. gr ¼ was administered hypodermically at bedtime. the other treatment the same, only one half the quantity of brandy administered.

Sunday the 16th, the patient has so far recovered as to be able to move about her room, her former treatment has been suspended and she now only receives some Tonic

Case 5th.

Strangulated Inguinal Hernia.

Thomas Turner, aged 52. Occupation laborer, was admitted into the hospital on September 5th 1870.

For 15 years this patient has been troubled with a "rupture", and for which he has constantly worn a truss, but on the day of his admission for some reason not understood, he removed the instrument and went about his usual avocation. After he had been at work for some hours the intestine suddenly came down but was immediately replaced by the patient's own efforts, in the course of a half hour the intestine again protruded, but the patient was un-

while this time to relieve it, and in a short time he was seized with a severe pain at the seat of rupture, which soon compelled him to summon the aid of a Physician who after many fruitless efforts to reduce it by "means of taxis" advised his friends to have him removed to the hospital. On his admission at 11 P.M. of the 3rd which was 7 hours after the occurrence of the strangulation his condition was as follows. His pulse 60, countenance pale though he was not suffering much pain, he had not vomited. Upon examining the patient the scrotum on the right side was

found to be about 5 inches long and from 2½ to 3 inches in diameter and quite hard and tense. The Surgeon in charge of the hospital visited him in a short time and caused him to be brought thoroughly under the influence of an anaesthetic and while in that condition endeavored to reduce the hernia by taxis but his efforts were not crowned with success. As the symptoms were not sufficiently urgent to call for an immediate operation, it was considered prudent to relieve the patient to his bed and by the administration of full Opium every hour it was

thought by several physicians present that the strangulation could be relieved in the instant without an operation by the knife. At 1 a. m. he began to suffer much pain and at the same time to vomit. In the course of two hours a hypodermic injection of morphia sulph gr 1/4 was given, since his stomach would not retain the opium taken into it, but this did not seem to be attended with any marked benefit. The patient continuing to suffer a good deal of pain and occasionally to vomit until 8 a. m. at about which time the surgeon, again visiting him, and after a most

careful examination, he came to the conclusion that an operation was the only thing that was likely to relieve him, and, accordingly, he underwent the same. He first cut down upon the external ring and, introducing his index finger into the inguinal canal, explored it to the internal ring, then laying the bro~~ad~~ pointed knife flat upon this finger and raised it up to the internal ring and, with very little difficulty he succeeded in getting the point of the knife under it, he then turned the edge of the knife upward, notched the transversalis fascia; he now endeavored to overcome

the strangulation by employing taxis to a slight degree, but this before the preceding attempts failed, since the constriction was situated in the neck of the sac itself. Now with the skill which is a characteristic of this surgeon, he immediately opened the sac when a large quantity of fluid made its escape, and a knuckle of intestine together with a piece of omentum protruded (it being an entero-epiplocele) upon an examination the bowel was found to be of a purplish brown color & preserving its lustre & polish. He now introduced his finger upon the point of strangulation and then carrying the knife up he divided the stricture. Much difficulty

was even more experienced in replacing the bowel on account of the thickened condition of the neck of the sac and the great amount of lymphinitis that was present. The part of the intestine that was constricted was deeply indurated but presented no signs of gangrene. The wound was closed by 3 points of silver suture, and cold water dressing was applied, and to the patient internally was administered pulv opii gr j every 3 hours. His nourishment consisting of milk-punch and beef tea. He rested quietly until 4 P.M. when he commenced to complain of so much pain in the abdomen as to induce the

Surgeons removed the sutures and allow a large quantity of fluid to escape which had accumulated, and was producing the distress. From that time he remained comparatively easy until 7 A.M., when he again became restless although he said he did not suffer any pain. At 8.30 A.M. it was evident that he was fast approaching dissolution, he had an involuntary evacuation, his pulse barely perceptable, his extremities cold, in 2 hours and ten minutes death close of the scene.
The intestine was examined and found to be greatly improved, having nearly returned to its normal color, a slight circle only marked the site of strangulation.

Case 6th

Acute Disseminated Nephritis.

James Elliot, age 26, occupation Sailor, admitted into the hospital August 25th 1870.

According to the patient's statement he had led a very intemperate life for 5 years, and has suffered a number of times from attacks of Intermittent Fever.

About the first of July he was attacked with the tertian form of this fever, and after he had been labouring under it for several weeks, he began to experience a dull pain in the loins which was soon followed by Oedema below the eyes, and in the lower ex

to miles. He soon applied to a physician for treatment, who immediately put him upon the sulphate of Quinia, and in a few days became free of the intermittent fever, but the pain in his loins continued, and the dropsy became general. Now becoming alarmed at his condition he requested to be conveyed to this hospital, and on his admission he presented the following symptoms. His countenance was pallid, & his face much puffed, his legs nearly twice their normal size, pitting upon pressure, much effusion in the peritoneal cavity fluctuation being very distinct, his

pulse 58, tongue much furred, appetite very poor, still complains of some pain in the loins, bowels very loose, and he passes a very little urine the sp gr of which is 1.0211 and forms almost a solid mass of albumen when tested with heat and Nitric acid. He was visited during the day by the physician in charge of the hospital who immediately put him upon an infusion of juniper berries and Bitartrate of potassa.

August 27th. As the abdominal distention is the source of so much distress a flaxseed poultice was applied to it, which affording him

much relief, the other treatment consists of pills, jalap, camp. &c. &c.

August 30th. He says he feels much better, he sees well during the night, and passes a large quantity of urine in the 24 hours, his bowels are constipated, treatment the same internally, and at night he takes a hot air bath.

September 5th. The general amazaron has greatly increased, the sp. gr. of the urine is 1.0220 and contains many casts, and epithelial cells. Treatment Elaterium gr ¼ every 3 hours, the hot air bath has to be suspended, on account

of its unpleasant effects.
Sept. 15th The patient com-
plains of much uneasiness, caused
by the vermicular distention of the
scrotum, his bowels are very
loose, he passes a very little
urine, his appetite is somewhat
improved. Treatment the same
intervals, the scrotum is painted
with Olive Oil and placed
in a suspensory bandage.
Sept. 17th His face does not ap-
pear to be so much puffed, but
there is a greater accumulation
of fluid in the peritoneal sac, the
scrotum is still much distended
he complains of pain upon pres

Dull over the region of the kidneys.
Treatment the same.
Sept 17th. The abdomen was very
unusually distended, and his respiration
so much embarrassed in consequence
of it, that paracentesis abdominis
had to be performed, and about
two gallons of fluid was thus
drawn off, which appeared to
patient immediately relief. No change
in the other treatment.
Sept. 23rd. The peritoneal cavity
demanded repeated filling up, his
abdomen could not be distended
as greatly as during the first
nine days, but still a large quantity
of albumen.

Sept. 24th. The patient suffered very
intense pain in consequence of
the large accumulation of fluid
in the abdominal cavity, that it
was considered advisable to
tap him again, and accor-
dingly about the same amount of
water was withdrawn today. The
greatest Circumference of the
abdomen before he was tapped
today was 42 inches, and after
the fluid was drawn it measured
36 inches. He does not receive any
internal treatment.

Sept. 28th. The fluid continues to escape
from the aperture made by the trocar,
the massive accumulation almost

disappeared. He passed a large quantity of urine which, on boiling, did contain much albumen when heated, with the nitric acid test. Hydrang Bichlor. his appetite is very good.

October 2nd. The fluid has ceased to escape from the wound in the abdomen and at present not any signs of dropsy exist. The patient is rapidly gaining strength. Prescribed

℞ – Ferri et potassae tartras grs v

S. – bd.

Oct. 10th. The patient has so far recovered as to be able to leave the hospital although his urine still contains a large quantity of albumen & fine casts. The patient has removed to the Infirmary in which his report was made out.

AN

Inaugural Dissertation

ON

Simple Intermittent Fever.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

A. Calhoun Dukes

Of

Orangeburg Co. South Carolina.

Session of 1870 & 71

A. Thesis.

On Simple Intermittent Fever.

By A. C. Dukes of South Carolina.

Intermittent fever is characterized by the occurrence of febrile paroxysms in regular succession, and by the absence of febrile movement between the paroxysms. The intermission is the distinctive feature of this form of fever, as its name implies. This disease is known as fever and ague or chill and fever. A paroxysm, when complete, consists of three distinct stages, viz, the cold, the hot, and the sweating stage.

Cold Stage. This stage commences with a feeling of chilliness, beginning in the

loins and extending thence over the back and limbs. The chill is more or less intense, in some cases consisting of a slight creeping sensation of coldness with shivering. During this stage the patient frequently sighs, and the teeth chatter; the pulse is small and feeble, the face is cold and pale, the lips and finger nails have a bluish tinge. The rings that fitted closely to the fingers becomes loose. Thirst exists, with total anorexia, occasionally vomiting. Headache exists with languor and pain in the limbs and drowsiness are common.

The sense of coldness does not prove a low temperature of the body; which the thermometer sometimes shows to be even hotter than natural.

Perspiration is absent. The duration of this stage varies from a few moments to two hours or even longer. The average duration may be estimated at from a half to three-fourths of an hour.

Hot stage. Gradually warmth is felt to return; shivering ceases, the face becomes flushed, the skin hot, the pulse accelerated, and generally full, headache continues, pain in the limbs. The mouth becomes dry; the tongue furred, and the bowels are constipated. Thirst is common with total anorexia. The thermometer when placed in the axilla in this stage indicates a rapid increase of heat of the body, usually to 105° or 106° Fah. This is a permanent symptom. The duration

of this stage is generally, from three to eight hours.

Sweating stage. This stage also concedes gradually; the face becomes [illegible] perspiration; then the [illegible] and extremities. Febrile movement gradually abates; and at length disappears. This is attended with increased comfort; headache, thirst, and restlessness ceases; the patient often goes to sleep and perspires profusely all over. After the fever has disappeared, the pulse becomes slow and soft, the skin cool. The urine at this stage deposits a sediment. The duration of this stage varies; the average duration may be estimated, at from three to four hours. Sometimes one of the three stages is wanting; as for instance the

cold stage constituting, what is called dumb-ague.

The space of time between the two successive paroxysms is called intermission, the period from the beginning of one to the beginning of the next paroxysm is called the interval.

There are three simple types of intermittent fever, viz; the quotidian, the tertian, and the quartan type. Quotidian type the interval is about twenty-four hours, or the paroxysms recur daily, as the name implies. In the tertian type the interval is about forty-eight hours, or the paroxysms recur every third day. In the quartan type the interval is about seventy-two hours, or the paroxysms recur

every fourth day. Of the three simple types, the quotidian and tertian are by far the most frequent. The quartan type is comparatively rare.

Cases have been observed in which the paroxysms has recurred on the fifth, sixth, seventh, and eighth day, and hence there may be a quintian, a sextan, a heptan, and a octan type of intermittent fever. Such cases, however are among the rarest of the rare. The greater number of paroxysms of intermittent fever occur in the day time. An attack which began as a tertian, may become a quotidian; or vice versa; such cases are extremely rare. Intermittent sometimes passes into remittent fever; though much less often

than remittent becomes intermittent. Paroxysms are sometimes double; as double quotidian, with two paroxysms in twenty-four hours; double tertian has a paroxysm every day. These also are rare.

Causation. The causation is commonly known as malaria, a poison impregnating the atmosphere that rises from swampy lands; marshes drying up ponds, miss stagnant water, cleaning up grounds &c. In my country, those persons who live near swamps and low grounds are more subject to intermittent fever than those inhabiting the high and dry and sandy locations.

Profs Salisbury claims to have ascertained that these fevers are caused by the introduction

into the system of cells or spaces emanating from certain species of algoid plants, called palmellae, which belongs to the lowest known vegetable organisms. To these species of plants he applies the name germiasma, signifying earth miasma, and also calls them agues plants. Prof Salisbury, claims that this discovery, is based on the following facts. A microscopical examination of the salivary secretion and mucous expectoration, in the morning, of persons living, in a malarious region shows cells of an algoid type resembling strongly those of palmellae to be the only constant bodies present; and these bodies were invariably absent whenever the mucous secretions were examined from persons residing, above the summit plain of agues.

These palmellacid cells were obtained by suspending plates of glass near broken grounds over night, in places whence malarious emanations were known to arise. The so called ague plant were invariably found in numerous localities in which intermittent fever prevailed, in no instance were they found where this disease did not occur. Cakes of surface soil from a malarious locality, which were covered with palmellae, were carried to a high, hilly district situated five miles from any malarious locality, where a case of ague had never been known to occur. These cakes were exposed in the sill of an open second story window opening into the sleeping apartment of two young men. A plate of glass suspended over them

during the night was found to be cover-
-ed with palmelloid spores and cells.
Both the young men had intermittent
fever; one on the twelfth and the other
on the fourteenth day no other members
of the family becoming affected. The
ague plant were found in the urine
of persons affected with intermittent fever.
Anatomical characters. Enlargement of the
Spleen is an occasional complication. The enla-
-rgement is often sufficient for the organ to
be readily felt through the abdominal walls,
constituting what is commonly known as
the ague cake, in districts where this disease
prevails. This organ become greatly hypertrophied.
This complication is not very frequent. I
recollect a case of a little boy last Summer

which I saw who had intermittent fever for three or four months, the spleen was so enlarged that it could be easily felt through the abdominal walls. The liver may become enlarged in intermittent fever, but it is very rare. Bronzing of the liver is supposed to exist in the majority of cases of simple intermittent fever.

Diagnosis. In well marked cases of intermittent fever the diagnosis is not difficult. The type is to be determined only by the duration of the intervals and a comparison of the paroxysms.

Prognosis. The prognosis is in general favorable. Simple intermittent fever, as regards immediate danger, is not a grave disease. When the disease involves immediate danger, it is to be considered as pernicious and not

therefore belonging under the head of simple intermittent fever. It may prove serious if it continues long by producing anaemia, and general dropsy. It is a favorable symptom in intermittent fever for the paroxysms to occur at a later hour from the previous one, and to become shorter in duration. Death, since the discovery of the properties of peruvian bark seldom occur from the ordinary type of intermittent fever.

Treatment. For the cure of intermittent fever Sulphate quinia stands at the head of all remedies; it will promptly destroy the malarial poison within the system. In the vast majority of cases if quinine is given some two or three hours before hand it will prevent the coming paroxysm. It is always

desirable to arrest the disease as speedily, as possible. Its morbid effects are less in proportion as it is quickly arrested, and the liability, to relapse is diminished.

The indications of treatment are, first, to abate the violence of the paroxysms, and secondly to prevent its return.

During the cold stage you should give hot drinks internally, and warm applications externally. A hot bath is very serviceable and hot bricks or bottles placed to the feet will often shorten the paroxysm, and decrease its violence.

The hot stage. During the hot stage, frequent sponging of the skin with cold water gives great relief. Giving internally cold effervescing drinks, as citrate of magnesia

iced lemonade or the nebiral mixture; If the stomach is not disturbed give one or two nitrous powders to abate the fever. If the bowels are constipated, and tongue furred, give calomel eight or ten grains which should be followed in three, or four hours by a saline cathartic, as sulphate of soda. Then as soon as sweating begins quinia or cinchonia should be prescribed.

The sulphate of quinia, stands preeminent with all medicines in intermittent fever. The dose of quinine between the paroxysms of intermittent fever is two or three grains every two hours until cinchonism is produced and then stop. The amount of quinine required in the intermission of ordinary, intermittent paroxysms is about 20 or 25 grs.

Less may cure, but can hardly be depended on. Quinine may be given in pills, powder, or in solution; if the former be preferred, they should be recently prepared. If, owing to irritability of the stomach, the remedy be not retained when given by the mouth, it may be given by enema. It is readily absorbed from the intestines, and the opinion has been held by some that it acts more efficiently when thus given. According to most observers, however, the quantity when given by the rectum should be larger than when given by the mouth. In all cases of intermittent fever the object of treatment is to break up the paroxysms as speedily as possible.

The hypodermic injection of a solution

of quinine may be resorted to in cases of intermittents, when the remedy is not retained either by the stomach or rectum. After the paroxysms are interrupted, the remedy should be continued in small doses from 10 to 15 gr. daily, for a week or two.
In anaemia cases of intermittent fever, the great remedy is quinia, and iron in small doses with nutritious diet to restore the strength and invigorate the body.
Enlargement of spleen is to be treated with quinia and iron internally, and anointing the enlarged organ with iodine ointment.

AN

Inaugural Dissertation

ON

Syphilis.

Submitted to the Examination

OF THE

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OF

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OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

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Of

Baltimore, Maryland.

Session of 1870-1871.

Historical Consideration.

There are many theories advanced, appertaining to the history of this direful malady, but not one appears to be sustained by facts incontrovertible; inducing us either to consider the first account of the disease, as having been lost to science by times corroding influences, or to accept as the most reliable, that theory, which is substantiated by testimony fixing its origin near the close of the fifteenth century, which testimony by some authors is regarded as being far from conclusive.

From remote antiquity, do we hear of ulcers, dependent upon contagion in sexual intercourse, appearing upon the genitals, and followed by abscesses in the groin; but there being no record of the existence of syphilomas, manifesting themselves distant from the point of contagion; and after apparently being cured, no accounts of repeated outbreaks following; these ulcers are considered as belonging to the class of local ulcers, which we designate as chancroids, and not as a lesion of true syphilis. The distinct

nature of the two ulcers in question, is now recognized, in accordance with facts established within the last ten years by investigations recently made relative to the disease, syphilis. The chancroid being characterized merely by a local manifestation, arising only from its like, in consequence of contagion, and whose influence is confined to the point where the virus is implanted; it not being endowed with the power of contaminating the general circulation. Whereas, the introduction of the syphilitic virus into the system, gives rise to such

symptoms, as manifestly declare it to be a constitutional disease.

In the absence of statements, relative to the constitutional effects of syphilis, we would not be justified in accepting the evidence of the existence of mere local ulcers as furnishing an sufficient proof of the existence of syphilis at that age. And in consequence of there being no statements, of the after effects, constitutional, of a venereal ulcer, previous to the latter part of the fifteenth century; we accept that theory, which includes the first statements, & which considers the disease as

originating in the fifteenth century.

In August 1494, Charles the VIII invaded Italy at the head of a large army, and besieged Naples; and while there, a new and terrible disease sprang up, rebellious to every known treatment, attacking and pervading all classes of society, and extending rapidly over Europe; consisting of ulcers on the genitals, followed by affections of the throat, as well as corroding ulcers over the whole body.

Although the origin of the disease, necessarily, had no

connection with the event; yet if the disease existed, and it matters not to how small an extent, the promiscuous sexual intercourse, prostitution and debauch, incident to and attending the presence of any large body of troops in a country, would have a great tendency to extend and give force to it; the subsequent extension of the disease being due to its conveyance, by the troops after the close of the war, to their homes.

The accounts given of the nature, in connection with

its appearance of this terrible disease, which was never before known in any age, and which was new to the whole world, correspond to a great extent, with the disease of the present date, Syphilis. The opinions also entertained respecting the disease, in a great measure correspond to those now held, but they gradually lost hold upon succeeding generations. Then followed the utmost confusion of ideas respecting the two distinct venereal ulcers, they being considered as modifications of the

same disease, arising from the same cause, the same virus originating it. This confusion arose no doubt from their apparent resemblance, as well as similar mode of transmission, also from the fact, that all ulcers were treated as soon as observed, by the use of Mercury, and the non-appearance of the symptoms, was attributed to its virtue, while in all cases where the secondary symptoms followed the primary ulcer, they were supposed to have occured from the insufficient use of the drug or to a greater degree of activity of

the "Materies Morbi". The investigations recently made respecting the subject have succeeded in establishing the non-identity of the two ulcers "Chancre" or true syphilitic ulcer, and the "Chancroid" or non infecting ulcer.

Clinical History.

The career of this disease is divided into three stages, characterized by symptoms, primary, secondary, tertiary; all of which, make their appearance with a great degree of order and regularity.

First Stage.

In the first stage of the disease we recognized the Chancre, situated at the point of introduction of the virus, with its concomitant indurated ganglia.

Although the Chancre is generally considered to be a primary symptom of the disease, there being no evidence of the disease previous to its appearance, it is properly a secondary symptom, since, at the time of its appearance, the system being under the influence of the poison, it is merely a manifestation, and

secondary to the period of incubation, which has an average from two to three weeks, but may be extended to five or six, or may appear previous to two weeks, from various causes.

The chancre appears in the form of a pustule, arising from a point of inflammation in the course of about three days, which pustule gradually merges into an umbilicated vesicle, which takes on ulceration, and increases in breadth and thickness, slightly excavated, with edges hard, elevated above surrounding tissues.

The base becomes indurated, the induration assuming nearly always a circular form, which terminates abruptly in apparently healthy parts and is freely movable upon part beneath. The ulcer presents generally a smooth, glazed surface, red or greenish hue; has but little secretion, and of a serous nature; requires for its full development a period of about eight days.

Following the induration of the base of the chancre, within a few days, or during the first week of the existence of the ulcer, invariably within

the first three weeks of its existence, we have developed the induration of the ganglia, all the superficial ganglia in one or both groins become enlarged, unaccompanied by any of the symptoms of acute inflammation. They preserve their indolent character throughout the whole course of the disease, and unless aggravated by some cause, do not inflame or suppurate; and to this may reference be made when there exists any doubt regarding the nature of the ulcer. The glands in

general become indurated, those at the posterior border of the upper two thirds of the sterno-cleido-mastoideus muscle, and the glands situated at the elbow, between the biceps and triceps muscles above the internal condyle of the humerus, these being most superficial may easily be felt or discovered.

After the chancre has become fully developed, the morbid poison lies dormant; during its quiescence, symptoms of general disorder manifest themselves, the patient becom

ing depressed in spirits, pale sallow & loose flesh; he suffers from headache, Neuralgia, pains, and a general malaise and listlessness.

Second Stage.

After the appearance of the initial lesion, or chancre, at a period varying from three to six months, the disease manifests itself, in the cutaneous maculated eruptions, which appear, first on the body or chest, gradually growing over the whole surface, extending to the thighs, and then upon

the arms. These eruptions are accompanied by "Mucous papules" around the anus, more frequently in the throat, giving rise to the characteristic sore throat of the second stage, mucous tubercles make their appearance inside of the cheeks, and on the arches of the palate, on the lips, on the generative organs and on the rectum. Deep ulcers of the tonsils and syphilitic laryngitis may also occur as concomitants of the cutaneous eruptions.

There is also a disposition of the hair to fall out "Alopecia"

with affections of the eyes "Iritis" and by inflamic engorgement in various parts of the body.

The general characteristics of the syphilitic eruptions, are the color, it being of a reddish brown, tinged with yellow, resembling the cut surface of a ham - their scale like appearance, and the absence of pruritus. In some of them, Psoriasis, the skin is raised, copper colored and covered with scales of hypertrophied cuticle; in an eruption of pimples, Papulae, they are merely succeeded by scabs or

exfoliations of cuticle. The scaly eruption, characterized by its covering of scales and cuticle, succeeded by scabs which when falling off, leave shallow ulcers with ham colored edges. There are others which to a great extent, resemble the foregoing in general appearances, and are characterized, by the general characteristics of the symptoms belonging to this stage of the disease.

Third Stage.

When the number of cases

of syphilis which present them selves, are taken into consid eration, the symptoms common to this stage will be found rare, as the di-sease generally, though not always, exhausts itself in the eruptions incident to the second stage of the disease.

Should the tertia-ry symptoms occur, they will be found rarely developed until after the sixth month, and may be retarded for some years.

They generally manifest

themselves upon the deep seated tissues of the body, in the sub-cutaneous, sub mucous cellular tissues, attacking the bones and their coverings, giving rise to acute and chronic periostitis, nodes, exostoses, caries and necrosis, also intractable ulcerations, especially of the nose, lips, ears and mucous membranes of various parts of the body, as well as diseases of the glands.

Diagnosis.

This has special reference to

the distinction which is to be made between the two forms of ulcers found upon the genitals, all others being disregarded, from their possessing no similar characteristics, or not presenting the appearance of either of the ulcers hereinafter described.

Should the ulcer present itself for examination, in its initiating stage, we may arrive at a correct diagnosis, by obtaining information relative to the period of incubation, it being, at that stage of the disease, possible to obtain correct knowledge relative to it.

As the ulcer generally presents itself full blown, we must differentiate, by referring to the special character of each; which are as follows. The period of incubation is to be taken into consideration, it belonging to the Chancre & not to the Chancroid.

The general appearance of the ulcer is next to be considered; the Chancroid generally exists multiple, the Chancre singly, and - the reverse being rare - of a circular ovoid form, superficial, with floor slightly excavated and edges elevated, Indura-

tion firm, cartilaginous, circumscribed and movable upon tissues beneath, having a red or grayish secretion not auto-inoculable. Whereas the Chancroid presents the appearance of an excavated ulcer, with abrupt edges, as if punched, edges not adhering closely to the subjacent tissues beneath; with flat worm eaten surface, having no indurated base, unless irritated, and then not circumscribed, having a copious, purulent, auto inoculable secretion.

Accompanying the chancre we find, all the inguinal glands

enlarged and indurated, freely movable, there being no pain and rarely ending in suppuration. Should the glands be implicated in a chancroid, we have generally only one affected, and this becomes inflamed and often ends in suppuration, the pus being self inoculable.

The suppuration and indolence are not symptoms of absolute value, as they may vary according to the disease, but they furnish a strong presumption as to the future of the disease, hence of great

importance.

As regards cutaneous eruptions, remedies aid us very materially; should we fail to arrive at a conclusion, from the antecedents of the case, having found that there was an ulcer, existing with a suppurating bubo, and mercury being contraindicated to some extent, prudence will lead us not to employ it longer than is necessary to test its effects.

Prognosis.

The severity of this disease,

like many others is in accordance with the tone of the system affected, the elimination of the virus, depending in a great measure upon the efforts of nature, in consequence of which, we may have the desease assuming a mild form - in rare cases the symptoms disappearing without assuming a serious character, or producing a permanent impairment of the constitution, in the absence of specific treatment - or it may, in the orderly evolution of its effects, appear in varied

phases between the mild and that form of the disease — depending not upon any inherent power of the virus, but upon the constitution of the patient — which continues to grow worse, and ultimately ends in death.

We may then conclude, admitting that in this as in all other diseases the vital forces afford some protection, when aided by specific treatment, or remedies, not administered to such an extent as to impair the system, the tendency of the disease in the majority of cases is towards recovery.

Treatment.

It would seem that measures to be adopted for the management of a disease, whose character is so severe and whose effects so fearful, would be fraught with many disadvantages, as well as misgivings, regarding favorable results attending their exhibition: but owing to the recent contributions made, to our former knowledge of the disease, and to clinical observation attending the treatment of syphilis, a class of remedies, ascertained to be specific, have been adopt-

ed, which can be relied upon to ameliorate the effects, and to a great degree cut short the disease in its devastating course. By many the specific treatment is thought to possess the power of wholly eradicating the disease, and from the effects induced from employing the said treatment, this might be accepted as the truth, were it not for the undoubted re-appearance of the disease, subsequent to its apparent cure, in one or other of its forms: the Specific treatment consist

ing of mercurials with Iodine and its compounds. As auxiliary to the aforesaid remedies, and to render their efficacy more certain, attention should be paid to the hygiene of the patient, a well regulated diet, simple and nourishing attention to the organs of the system in general, and especially to the functions of the skin, regular but not excessive exercise, and strict injunctions relative to total abstinence from all indulgencies calculated to exercise a de-

pressing influence upon the vital forces.

As syphilis has a tendency to lower the tone of the system, there are also in conjunction with the foregoing, indications for the administration of tonics — unless by some coexisting condition of the patient they are contra-indicated.

Those found to be most useful, as fulfilling special indications are, the preparations of 'Iumia' possessing tonic, and also as supposed by some, antisalivating virtues; the prep

arations of Iron' also, thus having a tendency to restore the blood to its normal condition, which in primary and secondary stages of Syphilis, is impoverished, there being a diminution of blood corpuscles producing 'Chloro-anæmia'.

The administration of the specific remedies are not indicated in the primary stage of the disease, as it is now known that the general circulation is contaminated previous to the appearance of the initial lesion, and that its removal will not

prevent the secondary symptoms from manifesting themselves, consequently the abortive treatment is rejected, from the fact of its being followed by no good results, and recourse to the administration of mercury is made only in cases, where great inconvenience and pain is experienced, from the size, depth and progress of the chancre, threatening the destruction of important parts; or where the relation of parties is of such a nature as to excite suspicion in the avoidance of sexual intercourse.

If here any of the foregoing conditions exist it may be advisable to administer Mercury - the form generally employed being "blue pill," in doses of "grs iii.," gradually increased, and guarded by opium, until the healing of the ulcer is established; the remedy to be then withdrawn and followed by the administration of the "Potassii Iodidi" combined with iron; to improve the general condition of the system and to lessen the severity of the premonitory symptoms, which usher in the secondary manifestations.

other, than for the specified purposes, mercurials should be withheld until the appearance of secondary symptoms.

In the administration of mercury, great precaution should be used, lest salivation be induced from its improper and too frequent use. It should be at first administered with great caution, as the susceptibility of the patient is unknown. When the mouth manifests the least tendency to salivation, the treatment should be suspended, temporarily; should

the symptoms show no tendency to disappear under one form of the remedy, it should be withdrawn and some other form addressed to the disease, for no form of mercury is used exclusively in all cases, and in all stages of the disease.

It is very often necessary to try several, before the one suited to the case in question, can be selected, for a preparation that agrees with one person frequently disagrees with another, and it is sometimes desirable to substitute one preparation for

another, the constitution having become accustomed to it. There are many forms of mercury used in the treatment of syphilis. Amongst the most useful, and of those followed by good results, may be mentioned the 'bichloride', which has but a slight tendency to salivate, and with the tolerance that it is borne by the system, may be continued with safety for a long period; it is generally exhibited in the form of pills, combined with opium, [in 1/4 gr doses]. to allay any intestinal irritation which may be occasioned by its use,

in the dose of 1/8 gr. - the pills to be administered three times a day - not to be taken on an empty stomach.

When a speedy action is required we may combine - as Pumstead recommends: ℞ - Pilulae Hydrarg ℈j - Hydrarg Chloridi mitis gr x - Hydrarg cum Cretu ℈j - Ext. opii gr v; M - xx Pills:- commence with one night and morning and gradually increase to three a day, following the general rule in the administration of mercury, that of "suspending when the mouth becomes tender, and to increase should symptoms cease to improve."

As the transition from one stage of the disease to the other is gradual, and as the line of demarcation between the two stages is hard to determine; it would be well in the latter part of the second stage, to combine the remedies indicated by the different stages, in one form, and we have the combination in the form of the bizziodide and protiodide.

The protiodide if administered, should be exhibited in half grain doses, with the addition of opium in third grain doses, two or three times a day; from its tendency

to produce diarrhoea, as well as abdominal pain and intestinal irritation, we make recourse to the biniodide; it may be given in doses of 1/16 gr., to 1/12th gr., gradually increased to 1/8 gr., combined with 1/4 gr. opium, administered in pill form two or three times a day. According to Ramstead, a convenient mode, is by decomposing the 'bichloride' by means of the iodide of potassium:

℞ Hydrarg bichloride grii –
Potassii iodidi ℥ ss
Aquae ℥ viii

Dose, dessertspoonful an hour after meals three times a day.

According as the secondary symptoms decline, are we to address the 'iodide of potassium', at first in conjunction with mercury, as morning & night, the mercury, at noon the 'iodide of potassium'; continue for short time and reverse the order, the 'potassii iodidi' being at first given in doses of five grains, increasing as circumstances may require. The 'iodide of potassium' may be administered some time after the mercury is withdrawn, and should unpleasant effects be occasioned by its use, we may withdraw for a short time, and

then again administer it. It is well to continue the administration of specific remedies two or three weeks after all appreciable symptoms have ceased to exist. The treatment relative to those symptoms which may reappear, is typical of that here before mentioned; the special indications depending upon what stage the symptoms belong, and to which they are most susceptible; bearing in mind, the fact of the early symptoms yielding most readily to mercury, the tertiary to iodide of potassium.

AN

Inaugural Dissertation

ON

Phthisis.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

C. Mark Gricel,

of

Pennsylvania,

Session of 1870 - 71.

My Preceptor,

[illegible]

[illegible] attendant at the [illegible]
[illegible] faithfully, [illegible] courtesy,
[illegible] and the [illegible]
[illegible] his attention and interest
in [illegible] and [illegible] of his young
[illegible]

[illegible] Lockes
[illegible] his position as a local
practitioner and his
social qualities.
His [illegible] is affectionately
reciprocated by his
friends and students

D. V. Rice.
Ottaqueing, Co.

[illegible] man [illegible]
[illegible] [illegible]
health would be a consequence and
[illegible] [illegible] [illegible]
a profession as Medicine.
This not being so, and diseases being
in existence it is necessary that
[illegible] should make
[illegible] disease and its cure
-ideas a Specialty.
Necessity is now as [illegible]
[illegible] medicine. Notions at
first crude, were rendered more
[illegible] [illegible] time [illegible]

practice.

[illegible] medicine and their [illegible] [illegible] [illegible] into [illegible] much of it [illegible] more than [illegible]. [illegible] and [illegible] have contributed their share to [illegible] of the [illegible] [illegible] [illegible] of the [illegible] medicine has become the [illegible] of a [illegible] [illegible] leaves us that [illegible] [illegible] cured the daughter of [illegible] by the administration of [illegible] [illegible] but [illegible] not [illegible] that the prescriptions were accidental or in accordance with scientific reasoning.

[illegible] reduced the crude

Conclusion - Enough has been
given under the heads of
made it a Science so interesting
to those who study it with the Early
Geology of the world that the author
would dedicate the little of time
Exercised on this little treatise
to describe material for the study
of Science as a Science it teaches
the theory of life on the Globe earth
that has existed and the
causes to which humanity is
subject in the grand object of those
Engaged in the Science of
this Especially requires much Ret-
ration and large observation.
In addition the Study of the

natural Sciences, the surroundings.
Each particular case must be taken
into consideration. The structure of
the body, the union of fluids and
spirit, the circulation, temperament,
age, mental bent of life, sex and
circumstances are all to be taken
in consideration in searching for
and treating disease.
Healing, hypnotism, Christian Medicine
and their defenders are all from
to have in the consideration of cir-
-cumstances connected with the
treatment of disease.
The variety of diseases to which man
is subject affords a large field for
study, anyone of which would

[illegible]

[illegible]

[illegible]

[illegible]

(as derived from the Greek word [illegible]
to rot or decay) was introduced
into the practice of physic when the
[illegible] little, because morbidly
of the morbid condition which
the [illegible] and other char-
acteristic symptoms of the disease
depended.

This would be sufficient to de-
stroy life but its mortal tendency
is hidden and accelerated in
most instances by a peculiar
character situated in other organs

If it is a disease of high mortality, it is not so by reason of its alarming frequency and fatality. It succeeds, therefore, equally well in the hands of the practitioner of superior judgment and skill combined.

The ordinary bread of the consumptive sufferer has been stated to be from the age of twenty to that of thirty-five, occasionally anticipating the first and overlapping the bounds of adolescence. It is to be noted that it is no more fatal in adult life. The disease among the whole range of human infirmities requires our particular attention, whether we consider its immense frequency and ac-

-killing morbidity, confined to young
adults or conditions of life it destroys
a larger proportion of mankind
than all other diseases.

Our knowledge of pathology can be
put to a very high use, if it succeeding the actual development of
tubercular accumulations, but the
whole cause of the disease prior
to the commencement of the
affection is in last stages. By a
knowledge of the fundamental defects of this disease we may
take to prevent the consequences
and if we investigate the causes
which point two to the tubercu-
lous deposits in the patient

[illegible] the cellular
tissue [illegible] in the opposite
direction. In the first three stages
of the mechanical stage and in
the granulating tissue [illegible]
of excavation.

In the first stage we have the
gray granulations varying in size
from a pellet seed to a hazel nut
here they are sometimes distinct
and sometimes united in clusters
these granulations after a time
lose their transparency and become
opaque and become white
finally opaque and
friable.

In the second stage this debris

[illegible] consistency [illegible]
-ter, somewhat intermediate between
a solid and a fluid, in this
state they are hard translucent
and of a grayish colour.
[illegible] the fluid [illegible] brownish
[illegible] matter [illegible] the lungs.
[illegible] matter [illegible] the
[illegible] is extremely [illegible]
[illegible] the exception is generally the
[illegible] the tubercles
[illegible] generally the most numerous
[illegible] contents are various
[illegible] mucous matter,
[illegible] and fluid, these tubercles
[illegible] scattered and [illegible]
[illegible] indifferently in all kinds of

the organs that underlie and back part of the lungs.

Symptoms.

There are two stages to be considered in the course of bronchitis the first stage. It is natural to suppose that the symptoms of any disease would be exhausted or diminished, when the organ in which the disease is seated; in this disease the first symptoms are a slight tickling cough, which is at first slightly relieved after coughing for a few minutes, which after a short time becomes frequent, the chest tender at first dear, then of and

opaque and become rhomboid
in form and slightly bleeding.
A little later accelerated pul-
monary sounds are felt about the root
of the lungs in the scapular regions and
expectoration comes on through the
appetite may be good. The cough
continues but is so slight as not
to attract attention. After a
longer or shorter time this cough
occurs during the day thus
it is attended with the secretion
of a mucous matter white
or yellowish opaque and in consis-
tence catarrh. The cough in-
creases; haemoptysis, debility and
loss of appetite is noticed and

[illegible] of the intestines.

The second stage

The symptoms of the second stage are so gradually insidious as to excite alarm, and it is difficult to ascertain the real cause.

The excretations changes, that is mucous or muco-purulent character are usually represented now exhibit lumps of cheesy matter this indicates a discharge of diseased intestines. Food is now an increase of fever, hatred to food, loss of flesh, prevailing diarrhoea, also great change in the excretions, it contains small secre-

of the lungs matter; he feels
cold a little stronger and
weakness weakness of the voice
or hoarseness is not uncommon.
The face is pale during the day
with flushed cheeks at night.
In some case the patient is
carried off by the sudden attacks of
some other secondary affection;
such as profuse hemorrhages.
Dyspnoea sometimes becomes very
distressing. The patient has chills
night and morning; in waking
up in the morning is bathed
in sweat in women there is
a total suppression of the menses
the energy of the mind undergoes

formities during the existence of the disease. There is also an unhealthy state of the mouth.

This disease is liable to great irregularities so there is not any symptom that does not vary in different cases, and the treatment which must be considered on the same plan.

Physical Signs.

The physical signs afforded by an examination of the chest during life under such circumstances are often obscure; yet will depend upon the tuberculous matter and where deposited. The conditions of the lungs

in the early stage of the disease there is a deposit of tuberculous matter commonly at the summits; this gives great dullness to that portion of the lungs; and consequently dulness on percussion; if not then absence of vesicular respiration. When the deposit is considerable some dulness of percussion may be perceived under the clavicle, by percussion on that part in the early stage we are unable to derive much further information. The sign is more significant if the dulness on one side is greater than that of the other especially if more

distinct on left side.

If the lungs are affected, the increase of clearness on percussion is more distinct than that of the side that is affected.

Percussion and Auscultation.

Percussion In examining the chest we should first observe carefully the state of ordinary respiration, and that of inspiration. When percussion is necessary we should examine under the clavicle, and extremity of that bone in order to distinguish the sound chest in disease to that of health, and the sound of one side of

Left to chest & heart side.
When the lungs are unbroken
there is feeble vesicular respiratory
murmur below the clavicle.
The inspiration is interrupted
and the sound of the heart
is distinctly audible; the cough
is increased. The amount of
sound depends upon the cavity
that is contained in the chest.
The changes are general it
may be great or slight, dull
or resonant or totally muting.
The pitch sound takes place when the
cavity is hollow or enlarged. The
second is oedema of the lungs.
The third is tuberculated het-

[illegible] and of the lungs.

Auscultation.

In practical medicine auscultation is by all three methods used in discovery of cause of disease, in relation to state of hearing after we have ascertained the capacity of the chest, we must proceed to examination of the respiratory murmur by the ear or stethoscope. We can tell if the respiration is interrupted.

The ear is generally preferable to using the stethoscope. There is also an increased vibratory manner of the voice, felt by the hand if applied to the chest, under

lungs are therefore not noticed for the upper portion of the right lung. When this occurs it means that the capillary rales and the sonorous rales make themselves heard.

Cough and Expectoration. Cough is one of the earliest signs of consumption and that which attracts the patient's attention and the patient's friends. At first it is dry and occasional; it arises from some irritation of the larynx and bronchia; it increases with the advance of the disease, being in proportion to the rapidity of the course.

in the cases this slight turn
the whole course of the disease,
in these cases may after
days before death.

Cough may depend upon
the diseased state of the stomach.
The pneumogastric nerve may be
irritated there, it may be the
cause of common catarrh, it may
be the result from disease of
the heart but this we refer
to hereafter in minute and inquire
into these remote causes of this
disease and ascertain if there
be any unnatural or deranged
state of the digestive organs, when
this cough continues for some

time it becomes gradually tighter and a thick ropy fluid resembling Saliva is expectorated. A portion of this expectoration comes from the bronchial tubes and consists of altered mucous. The Sputum most characteristic of tuberculous deposits consists of globular flocculent masses. They assume a flat circular form, and remain distinct and separate from each other. The quantity of matter expectorated differs in different cases, in some it is slightly in others it is profuse and even exhausting if cast into water some sink while others

Shoulders and back bones. The mucus coloured sputa occurs in hopeless cases towards the termination. When sputa becomes quite white, but fetid, in male shows a sign of the advancing stage of tubercles. We also have hæmoptysis which occurs in cases of extreme violence. Dyspnœa in some cases is very painful and attracts attention while in other cases occurs just a short time before death. Thickness of the heart may give rise to this affection.

Causes of Phthisis.

The causes which are predisposed to this disease are very numerous.

The general causes are unhealthy and bad food, impure air, want of sufficient efficiency of light, poor diet, climate, intemperance or any disease that produces exhaustion or impoverished blood. Should be considered among the frequent causes also the presence of syphilis, gonorrhoea, purulent &c.

This disease is met with all over the Earth; but is less common in extreme north latitudes than elsewhere. It most frequently attack those peculiarity of those which expose them to the cold. The phthisis which attack

person at the age of fifty is
secondary instead of primary or
idiopathic affection and follows
as a sequel of a strenuous habit
that has previously shown itself
in a morbid condition of the
mesenteric or some other organ
with which the lungs sympathetic
associate in action, where if
they had not been accidentally
excited would have remained
dormant for years and after a
whole life time also reduce the
temperature constantly increasing
from high degree to that of
fever. The cases that generally
occur above thirty five is con-

fined to the lower classes, tho' we
also have injured tissues, ulcerations
or other debilitating
causes. The causes of phthisis
are divided into two classes,
Predisposing and Exciting.
The predisposing causes are nu-
merous. The most frequent is the
particular formation of the tho-
racic organs, impure
air, intoxicating drink, low rank and
limited wages, insufficient
sufficient exercise, Scrofulous
diathesis, excessive labor in-
proper clothing, the impurities of
air arising to deficient ventilation
and exhalations from men in-

particularly determinative, the deficient food must be regarded as the most powerful predisposing and sustaining cause of pulmonary consumption.

Exciting causes. Anything which is capable of irritating or inflaming the lungs may develop tubercles. Those who work at different trades, particularly if they be bending stooping constantly as shoemakers, tailors are prone to consumption. But the danger is increased if there be particles of metal, stone or wood be given off in the process of manufacturing and inhaled by the persons at work. For the

accumulation of dust in the air cells of lungs and the irritation and secretion which follow may give rise to consumption, pneumonia, bronchitis or tight lungs. Anything which interferes with the functions of the lungs may favor the formation of tubercles, inflammation of bronchial lungs, trachea are frequent causes of tubercles and immoderate use of opium when mixed in tobacco the lungs become habitually irritated and hemoptysis is induced.

Diagnosis.

The diagnosis of a disease is

Healthy physician under
stand rich to the sick the di-
agnosis teaches much of the pro-
able progress of the disease and
of its effects in inducing changes
in structure and devastating
of the process of the neural
System. The study of the history
of the disease greatly aids in
the diagnosis. The constitutional
cause which involve the hend-
itary predisposition, previous
attacks &c may aid us in our
diagnosis. The particular
circumstance more particularly
embraced by the history of the
disease and the cause progress

the stage effects of remedies, the season of year the prevalence of epidemics the constitutional health and previous disease of the patient. The history and symptoms of the disease may be noticed by observation and inquiry. The diagnosis of phthisis in the first stage is quite difficult the cough and expectoration which is one of the principal signs of the disease, may continue for weeks, or months, with emaciation and slight loss of appetite which is a prominent sign of tubercles, slight sub-scapular dullness and diminished

In a manner the hygienic depressing effects are great. Extremely indeterminate the diagnosis of this disease, less forcible inspiration and fluttering of the apex of the lungs afford but a great sign. Bronchitis is a disease in which phthisis bears the closest relation. In case it may be one of chronic bronchitis or consumption, a careful examination of the region of the chest will decide. A flat upper or sternoth-clavicle is a fullness of sound, also an unusual distinction of the sound of expiration if heard at the summit of the lungs there is a

sign of tubercles. When the cavity is large fully auscultation now elicits a sound called gurgling; caused by the bubbling of air with pus or mucous contained in the cavity. The difficulty of diagnosis between bronchitis and phthisis it is only when dilatation of the bronchial tubes coincide with bronchitis that causes embarrassment. The sound of phthisis is dullness between the clavicle and mammar in front, and between the scapular and upper edge of the scapular behind. In phthisis the tubercles are near the upper and superior

of the lungs.

Prognosis.

Under the division of prognosis we have to consider whether a disease is remediable, and the degree of danger that attends it, and probable duration; the circumstances that are likely to give rise to it during its course, and the probability of other disease supervening. A certain prognosis will be an influential and honorable means of promoting the physician's own reputation. In the very great majority of cases this is certainly unfavorable. In some cases consumption simulates

disciples entered in the second
stage. In the present state of med-
-ical Science the only combines a
simple and accurate observation
of individual circumstances
with an enlightened but cautious
application of pathology; will be
found the most sagacious in prog-
-nosis, as well as the most suc-
-cessful in practice; our own prog-
-nosis of disease will point out
to us if the disease is curable
or not, and between these ex-
-tremes we meet with many
shades of difference. The prognosis
of this disease in females is
of great importance especially

at the time of appearance of the
menses.
Dysphthisia and Measles seem
sometimes to arise from a pe-
-culiar sympathy or relation
between parts which are neither
contagious nor immediately con-
-nected with each function. How-
-ever the uncertainty the dura-
-tion of the prognosis of the du-
-ration of the disease may be
it is as a general rule more
or less uncertain in acute
than in chronic affections.
If phthisis is attended with
vomiting and diarrhoea the
case is fatal and speedy death

ment follow.

Treatment.

It would be impossible to enumerate all the remedies which have been used in the cure of children. The great majority of them had their rapid introduction and although they obtained some success in their day from credulity of the public, they were generally found inadequate to accomplish the cure promised by the ignorant or mercenary inventors or introducers. I will here offer the following list of medicines which have been furnished from Nature

practice and practitioners have in some cases established. In the treatment of the disease or in giving relief of particular symptoms. The general remedies are bloodletting, emetics, digitalis, iodine, cod liver oil, opium, morphia, oil of turpentine and various preparations of iron, counter irritations local, bleeding, inhalations and arsenic. In the treating of phthisis we have two indications — first to prevent the further deposit of tubercles, and second to prevent the lungs and the system from the injurious influences during progress.

Before entering further detail of tubercles or tuberculous matter, we must endeavor to maintain the general health by attention to quantity and quality of food, exercise, bathing, our clothing, housing, comfortable and avoid exposure, regulate the diet, we must strengthen the vigor of the system and avoid the exciting or influencing the pulmonary inflammation. We dieth much to the next medicine. The animal diet is best, we much proportion the diet rather low, a lunet S. and Clabe steak, made. Vivdletting is contraindicated by some in the early stage

Phosphorus is used to resist the
overwhelming caseous Exudates
are employed to cause the tuber-
culous matter to slough or be
detached. Remedies most
frequently used are full of Cod-liver
oil Exotics Excess and digi-
talis. Digitalis is used in
Minute cases of febrile excitement
and excitability of the nervous
System in regulating the heart's
action. Iodine effects the nutri-
tive functions. Iodine of Potassium
absorbs the the tuberculous mat-
ter and gives temporary relief.
Codliver oil nourishes the body
and diminishes the cough

or restoration and night sweats.
Quinia and Morphia in excessive
doses when there is haemoptysis
if of inflammatory character
Counter irritations as blisters or
mustard poultices to the chest
when it is painful. Bark is an
excellent tonic. The inhalation
of chlorine volatilized oil substance
are of great importance. The in-
halation of chlorine produces a
free inspiration.
When the disease is accompanied
with dyspnoea we administer
the Ext of Stramonium or a saturated
sol of Ether or asafoetida
In case of diarrhoea catechu lep-

wood, King and opium.

In hæmoptysis unattended with fever give acetate of lead, opium & Ipecac Iodine and iron. In the febrile fever and accompanied with heat and tightness of chest small doses of tartarized antimony at the introduction of fever.

In case of vomiting arising from stomach apply leeches and blister — if bulky frequent digitalis with cherry bark when there are chills let regular intermittent give quinia in full doses.

For stimulating the system give carbonate of ammonia wine whey, milk, brandy and egg nutrit

and other Stimulants.

G. Worth Price.

Gettysburg.

Pa.